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ABSTRACT

Theoretical aspects of the spectator role in James Britton's (1970) model of language use are explored within a perspective based primarily on the work of George Kelly, Susanne Langer, Jean Piaget, Michael Polanyi, and Denys Harding. This view is amplified in a series of empirical studies based on stories told by children between the ages of two and five, and on written and oral responses to repertory grids and open-ended questionnaires by six, nine, thirteen, and seventeen year olds and from five schools. Separate samples of eleven, thirteen, and sixteen year olds were drawn for a supplementary study of various spectator-role genres and media. Developmental changes center in: (1) the relationship between spectator-role experience and the life of the individual; (2) knowledge of the conventions of spectator-role discourse; and (3) the complexity of the experience (both personal and literary) over which a person has mastery. Spectator-role discourse emerges as a separate mode of language use at a very early age, but there is only a gradual separation of spectator-role experience from other life experiences. Not until adolescence is such discourse clearly a way to present possibilities rather than to describe reality. (Author)

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THE SPECTATOR ROLE:

Theoretical and Developmental Studies of Ideas about and Responses to Literature, with Special Reference to Four Age Levels.

Arthur Noble Applebee

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A thesis submitted to the University of London in partial fulfilment of the requirements of the degree of Ph.D., 1973.

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ABSTRACT

Theoretical aspects of the spectator role in James Britton's (1970) model of language use are explored within a perspective based primarily in the work of George Kelly, Susanne Langer, Jean Piaget, Michael Polanyi, and Denys Harding. This view is amplified in a series of empirical studies based on stories told by children between the ages of two and five, and on written and oral responses to repertory grids and open-ended questionnaires by six, nine, thirteen, and seventeen year olds from five schools. Separate samples of eleven, thirteen, and sixteen year olds were drawn for a supplementary study of various spectator-role genres and media.

Developmental changes center in: 1) the relationship between spectator-role experience and the life of the individual; 2) knowledge of the conventions of spectator-role discourse; and 3) the complexity of the experience (both personal and literary) over which a person has mastery.

Spectator-role discourse emerges as a separate mode of language use at a very early age, but there is only a gradual separation of spectator-role experience from other life experiences. Not until adolescence is such discourse clearly a way to present possibilities rather than to describe reality. Across the age-range studied, there is a gradual increase in knowledge of conventions and in the complexity of the experience handled. Narrative form itself shows a sequence of stages paralleling Vygotsky's (1962) stages of concept development; two processes, centering and chaining, underlie these stages and seem generalizable to more sophisticated literary forms. Verbal formulations of response are analysed in four stages paralleling Piaget's stages of intellectual development. At each stage, Langer's (1967) objective and subjective modes of feeling show parallel but distinct formulations.

Major dimensions in construing stories include 'evaluation', 'simplicity', 'realism', and 'seriousness', each of which shows developmental changes in its definition and importance. Response to various genres and media suggests there is a common spectator-role construct system, within which there are typical expectations about each genre.

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CHAPTER I

PROLEGOMENON

1. Introduction

Why do we read literature? That is the basic question that we will be asking here. Why do we read it to our children and teach it in our schools? Why do we honour our authors as well as our scientists? Do we simply seek entertainment, or does literature serve another and deeper purpose in our individual and cultural lives?

It is for the light they may shed on questions such as these that the developmental and theoretical studies which follow are offered. The approach will of necessity be indirect. Of all the subjects that have become a major part of the school curriculum, literature is the one that has been least amenable to formal analysis or treatment as a body of knowledge. Equally clearly, it was only as such a 'discipline' with its own content and procedures that literature was able to win a place for itself in the curriculum at all. That place is still less than one hundred year old and even today is sometimes called into question: literature is all very well, the argument has gone, but what is there to teach?

The close relationship between literature and the ongoing process of man's life has long been recognized: Plato banned poetry from his Republic because of his theories about the kind of relationship it was; Matthew Arnold defended literature as a much needed "criticism of life"; Louise Rosenblatt in summing up the literary creed of the American progressive movement called it an "exploration" of life. Yet there have been no less ardent protagonists of the opposing view. We have had theories of Art for Art's Sake; of art as satisfying a basic need for aesthetic pleasure (a need at the same time apart from the more pragmatic needs of man); and of art as pure form, a labelling or entitlement of recurrent feelings and emotions. Whichever side we take, we can expect that the issues addressed in a study of the functions of literature will be neither simple nor peripheral. They will from the beginning be questions about the nature of man.

2. A View of Man

The fields to which we will turn for insight in developing a view of man are diverse; they include among others linguistics, psychology, sociology, neurology, and philosophy. Writing from within their own disciplines, the authors with whom we will be most concerned have established such different vantage points that they often seem to be more in conflict than in agreement. But those whom we will claim as cohorts share an emphasis on the active, structured, and constantly changing nature of mind.

We will argue that rather than being more or less in conflict, the major authors provide us with explanations of different parts of a total theory of mind, that their explanations are complementary rather than contradictory. It is on the larger theory, rather than on the sources out of which it comes, that we will focus our attention. This strategy, if we are successful, should yield a more coherent framework for our later studies; it should also make clear where our basic premises of compatibility and complementarity break down.

For the past seventy years, under the aegis of the behavioral psychologists, psychological theory has tended to view life as bundles of response systems waiting to be activated through contact with environmental 'stimuli'. The basic equation in such studies has been $S \rightarrow \square \rightarrow R$, itself more recently reconceptualized in terms of the 'inputs' and 'outputs' of linear programming and systems management. As early as 1924, L.L. Thurstone pointed out that this behaviorist approach is inherently in conflict with that of psychotherapy, the other major domain of psychological theory. While the first begins with a concern for external forces stimulating response, the psychotherapeutic emphasis as presented by Freud places the source of the action in the individual and the shaping of the course of the action in the environmental conditions and life history. Thurstone argued at length that the psychoanalytic approach is the more accurate.

The evidence that life begins in activity rather than in rest is diverse. Thurstone pointed out that such primitive organisms as vorticella and paramecium are constantly in motion; they have no 'resting state' at all. Other research has demonstrated that even an isolated nerve cell fires spontaneously and at random, the process becoming controlled only as the nerve is integrated into more complex systems of action. Rather than a nerve being stimulated into action, it is more accurate to say that a stimulus makes an impression upon an ongoing pattern of activity. The nature of this pattern is best evident during sleep, when the electrical activity of the brain, for example, is dominated by large and regular rhythms: these must be interpreted as the summation of the more or less synchronized activity of the multitude of individual nerve cells that make up the human brain. When the organism is awake, these large waves disappear from measurements taken at the scalp, presumably because the cells are responding independently to stimuli (whether externally or internally generated) and are no longer operating in synchronization. Similar processes of minute rhythms concatenating into larger and larger rhythmic patterns are found throughout the human body--among the better known are the heart beat, respiration, and the diurnal temperature cycle. It is only by an impression upon these ongoing, rhythmic actions that a stimulus can have any effect on the organism at all (cf. Langer, 1967; Hebb, 1949).

A Theory of Acts

Thurstone went on to outline a behavioral approach in which the basic unit of behavior would be the 'act', which he defined as "the history, or course of events, by which a craving or want becomes neutralized in satisfaction" (p. 13). He described the characteristics of that history in considerable detail, but a more recent formulation of a similar point of view will serve our present purposes better. This is Susanne Langer's Mind (1967).

As a philosopher rather than a practicing scientist, Langer is looking for unity and order throughout the realms of the natural sciences. Recognizing the limitations inherent in the analytic tools that have been developed in each branch separately, she too proposes that by taking the 'act' as a fundamental unit of analysis, one should be able to attain a viable general perspective. To her, an act is quite simply any unit of activity which shows a characteristic form of initial 'impulse', building up of tension, discharge of energy, and gradual subsiding--the pattern in fact of neural discharge. By taking any (rather than for example the 'smallest') unit of activity having this form as an act, Langer is able to encompass all levels from the single cell to the most complex intellectual patterns and responses.

Though an act is a unit, Langer recognizes that few acts can be explained in isolation from one another. The five year old who likes his story too well to make a needed trip to the toilet and the swimmer whose heavy meal gives him a bad case of cramps are extreme cases of an inherent, systematic tension between acts that must also be fundamental. In man the great variety of independent systems of acts is readily apparent: the respiratory, circulatory, and digestive systems (to name but a few) each make their own demands; the senses are continually registering external events and offering them up for attention; and the mind is quite capable of adding other conflicting impulses--to read a book, go for a walk, or fix the dripping kitchen faucet.

In an important essay entitled "The Republic of Science," Michael Polanyi (1969) has argued that such a system of tensions is an efficient method of organization both for the control and direction of scientific research and for the progress of a culture as a whole. Rather than being subject to a governing central authority, science in the free world has been characterized by a "mutual adjustment of independent initiatives" (p. 50). Continually interacting with their peers, competing for funds and recognition, independent scientists capitalize rapidly on new discoveries and concentrate on areas in which the most rapid development seems possible. Rather than a balanced distribution of resources among the various scientific disciplines, this leads to a productive distribution which carries the whole system forward. Polanyi notes that the nature of such a culture is such that no one person can know the whole domain thoroughly, but no one needs to. Instead, the various segments, like the cells in a matrix, are unique but taken together form a coherent and integrated system or 'field'. A discovery in one area of science will spread first to those other areas with which there is the closest contact, from them to the areas with which they have the closest contact, and so on until the whole field has adjusted to the change. Though no cell is in contact with all others, it has a quite direct influence upon them--just as, for example, the Black Power and Civil Rights movements in the United States have altered the whole cultural fabric, though in fact only a limited portion of the population has ever had direct contact with either.

Similar processes are at work in the coordination of the biological systems of an organism. The 'resources' available are apportioned in terms of the competing 'demands' of various systems, not in terms of a central process but through Polanyi's "mutual adjustment of independent initiatives." Each subsystem is able to go its own way without waiting for such direction, and thus the organism is able to simultaneously carry out the many subprocesses necessary to sustain life. (The much greater speed and efficiency of such 'simultaneous processing' through functionally autonomous subsystems has often been noted, especially in fields like computer processing. Cf. Adams-Webber, 1970; p. 35.) On a simple level the mutual adjustment of subsystems in living things is well known. During periods of great stress and activity blood supplies to the digestive system are constricted and diverted to the brain and musculature--just as in periods of rest after a big meal they will be diverted in the opposite direction. They are distributed not on the basis of a supra-rational central mediator, but simply on the basis of the intensity of the demands of the systems involved; or in our terms, the strength of the acts that are in tension with one another. Such a system works well in most cases, though as we have seen it is also possible for independent systems to make demands which are simply too great for the system as a whole to sustain: the blood flow needed for strenuous exercise and the absolute minimum which the stomach needs after a large meal can exceed the available supply. Cramps are the result.

Artifacts

Summarizing similar processes of the mutual adjustment of independent initiatives from recent studies in genetics, Langer derives a basis for the 'individuality' which is such a striking feature of organisms even when we think of them as specimens of a certain type. For Langer argues that bodily form is in fact the material result of the ongoing competing processes. It is an artifactual record of all that has gone before. The growth rings in the cross section of a tree trunk are one example of the kinds of pattern Langer has in mind. They record in highly visible form the result of earlier acts of growth[1] as they were modified and controlled by (in the case of the tree trunk) the largely external influences of temperature and rainfall. Similar processes involving the mutual balance of more obviously internal acts can be seen in the deployment of colour and pigmentation in flowers and insects. Final patterns of colouration result from differential rates of growth in different parts of the developing organism. This may be organized as a limited number of major growth areas (as happens in the tree trunk example), or from scattered centers of growth each acting independently (the mechanism which produces the spots on a jaguar's fur) (Langer, 1967; pp. 331 ff.).

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[1] Langer includes growth as an act in her system, defending this assertion at some length. A briefer version of the argument is given below. Langer does not use 'artifact' in the context of individuality, but it provides a useful link with other parts of our discussion.

Such a process can be easily illustrated by slowly pouring two different paints into a shallow bowl. The pouring is analogous to the activity of two separate growth centers, and the resulting pattern of colour will be a spatially organized record of temporally organized acts--in this case, of pouring. As in genetic expression, the total configuration can be changed by altering just one of the competing forces contributing to it--by moving one can of paint as you pour, for example, or by using less of one colour than of the other. This explains in part how a single change within a complex whole organized by the mutual adjustment of independent initiatives can have such far-reaching consequences on the overall structure.

There is another aspect of these formal patterns that we should note for future reference: they are not only a result of earlier patterns of activity, but also a record from which we can 'read back' what the patterns of activity were. The growth rings in a tree trunk offer information about the climate and weather conditions of the past; the distribution of colour in a plant can be traced to the action of individual genes. And as will become clear later in our discussions, the 'verbal artifacts' (Britton, 1971a) of man provide a permanent record of his processes of construing.

The Act of Growth

Before going further with our discussion, it may help to treat the act of growth in more detail, especially since it may seem rather suspect to [illegible] such a long-term process as part of a general theory of acts. The [illegible] growth as an act depends upon the fact that an act is defined essentially as the resolution of a tension. The first stage of the process is Langer's 'impulse', a gathering of tensions; by definition when these tensions are released an act will result, characteristically taking the form of an accelerating pace of activity, a peak, and a progressive decline as the tensions are resolved. The impulse can be released in a variety of ways, through contact with the external environment or through the influence of other ongoing, internal acts, but once it has been released to say that an act has ensued is virtually tautological. The strength of an impulse that has been released to carry through to a characteristic completion--and not just a tautological one--is nonetheless surprising. A cell in the process of division will complete the process even when the organism has died (though no new cell divisions will begin), so that if tissue samples are not taken soon after death there will be no cell division evident. A similar impetus or drive to completion underlies the ability of certain specialized tissues to change their functions with changing motivating circumstances. The gill structures that must have been functional at some evolutionary stage serve a wide variety of other functions in birds and mammals where the gills themselves are useless; the pouches that appear in the human embryo rapidly change into the thymus and parathyroids, the gill slits become part of the ear, and parts of the throat develop from the ancient breathing apparatus. The processes involved in such shifts are essentially those we talked of in pouring two paints together in a shallow dish: the final configuration of each is shaped by the other, though its own impulse insures that it will take some shape in the form that results. (Langer, 1967; pp. 379, 408.)

It is this sense of impulse as energy that Langer is using when she calls an impulse a 'potential act' that prefigures the final act even though the form it takes will be dependent upon the entire matrix. Such an impulse, like the act it prefigures, can take place on any level; for the act of growth, the impulse is realized through the genetic code, itself a system of electrochemical tensions. In the human, these tensions are released when egg and sperm are brought together in a suitable environment; the act of growth is the result, beginning with fertilization and ending only with the death of the organism. Whether we take each bit of genetic information as a separate potential act or treat the entire genetic code as one system of tensions, we can see that the act of growth (the expression or realization of the tensions) will have implications beyond itself. It will be successful and the organism will reproduce, thus renewing the cycle of action, or it will fail and the particular system of tensions will end. Without making any assumptions about conscious processes or alternative courses of action, there is a sense in which each such act of growth is the testing of an hypothesis about the viability of the particular set of tensions out of which it comes.

3. Action Systems

Articulation and Entrainment

Few acts have the autonomy of the act of growth as it appears in the life-span of a single organism. Most are subsumed by other, larger acts much as the body rhythms represent the summation of many smaller cycles. Langer provides a number of analytic concepts that will help us deal with these larger aspects of behavior. The first is entrainment, the process by which a stronger act is able to integrate other initially unrelated acts into its course. The vertebrate heart is a fascinating example of the process. In embryonic development,

> The slow but rhythmical beat begins along the right side of the ventricle and gradually involves the whole ventricular wall. Soon the entire muscle of the ventricle is contracting synchronously. ... Meanwhile the atrium has been forming. As it takes shape, it too begins to contract but at a more rapid rate, which governs the rate

> of the heart as a whole, the ventricular rate being increased. ... Finally the pacemaker develops. When this region, which controls the contractions of the fully formed heart, starts contracting, the whole heart accelerates. ... If the regions of the heart are cut apart and isolated, each tends to revert to its characteristic rhythm. If they are combined, again the slower is increased to keep pace with the faster. (Langer, 1967; p. 385, fn. 47.)

This offers a clear example of subacts being enlisted in the activity of a stronger, dominating impulse while maintaining a functional autonomy which can be reasserted when the stronger influence is removed.

The converse of entrainment is articulation, the process by which a single impulse is gradually refined into subunits which can later be involved in other, independent processes. Again, embryonic development offers good examples. In the salamander larva,

> ...the first limb movement is an integral part of the total reaction of the animal and...it is only later that the limb acquires an individuality of its own in behavior. The local reflex of the arm is not a primary or elementary behavior pattern of the limb. It is secondary, and derived from the total pattern by a process of individuation. ... The limb arises in absolute subjugation to the trunk. ... The freedom which it ultimately attains, particularly under certain experimental conditions, has the appearance of being practically absolute. (Langer, 1967; p. 269, fn. 27.)

Here, then, the developmental pattern is exactly the reverse: rather than several independent acts being integrated into a larger whole, a crude and elementary act is deepened through a process of further development of its parts until they are capable of functionally independent acts of their own. In practice the processes of articulation and entrainment usually go hand in hand: as a system matures, its parts are progressively differentiated through a process of articulation at the same time that they are being more closely integrated into larger functional units through a process of entrainment.

Articulation and entrainment are used by Langer only in the context of the individual organism. A parallel set of concepts relates organisms one to another: these are the processes of individuation and involvement which Langer uses instead of the usual organism and colony, individual and society, self and not-self (pp. 307 ff.). The human mind is the highest form of individuation which has yet occurred; it is simultaneously the basis for his corporate acts--his involvement--which extends man's range far beyond that of the individual on his own. Rather than opposing processes representing different ends of a biogenetic scale, Langer argues that they are complementary and move together, perfect reflections, step by step.

Systems of Implications

In certain circumstances an act not only results from a particular context but also changes that context in such a way that the act is more likely to be repeated in the same form. Langer has called this phenomenon 'facilitation' (p. 381). Where it exists, facilitation provides a basis for building up systems of behavior which are not simply rhythmic concatenations; it creates a path rather than maintains a cycle. This process is of special importance to us because one of the areas in which it operates is the nervous systems of animals, including man.

We will call the results of the process of facilitation the implications of an act, meaning by that the actively induced changes in the structural matrix within which acts take place. How such processes operate within a complicated organism such as man is problematic, though a number of interesting theories have been advanced to explain it. The one point that is clear is that the changes must be in some sense physical, whether this means that there is growth at the synaptic gaps or changes in the electrochemical composition of the surrounding medium. For our purposes we do not need to dip into the controversies surrounding this particular point, beyond noting that the effects have been systematically--if variously--accounted for. Hebb's (1949) theory of the cell assembly is one of the most comprehensive and useful of those which build upon processes of facilitation, especially when one notes that the mechanisms that Hebb derives are feasible whether one accepts his explanation of them in terms of growth at nerve endings or prefers a different account of the structural changes.

The important point is that acts do have implications for the action systems of which they are a part. These implications seem to be two-fold: they concern both other acts occurring simultaneously and those that follow sequentially after. Whatever the structural mechanism, later acts will tend to take place in the same total context and to be followed in the same way. These systems of implications of previous acts thus provide a kind of template, a way of ordering the world that will be activated in dealing with a new experience. The more often a given act is repeated, the stronger the system of implications deriving from it will be. (The process is similar to that by which a stream simultaneously alters and deepens its path by the very 'act' of following it.) Conversely, if the context of the act is changed so that it is forced to take a new shape, the system of implications will change too, thus building up an alternative mode of expression. The activation of the full context of an act, a context built up of the implications of previous acts, is essentially the giving-of-meaning which allows behavior to become intentional and 'intelligent'. It is what Polanyi (1969) has called the 'tacit integration' of the elements of the context into a coherent whole.

We can apply this approach to some of the experimental results which the behaviorists have obtained. The starting point is the recognition that the organism--whether planaria, rat, or human being--in a behavioral experiment makes use of exactly the sorts of patterns of implications we have been talking about. His actions in effect test the usefulness of the patterns available to him, and the results of each action include a new system of implications which will either strengthen or conflict with the older system. The joke about the rat who thinks he has trained his experimenter to feed him every time he presses a lever is not far wide of the mark; from the point of view of the subject of such experiments, that is exactly the process underway.[2] The experiment is not about building 'associations' or 'connections' between two stimuli and then perhaps 'extinguishing' them; it is about testing hypotheses about behavior appropriate to a new situation. Or, put another way, it is about developing a stable pattern of implications for integrating the elements of the experimental situation into a meaningful whole.

The observation that the subject in a behavioral experiment is in one sense testing hypotheses is not a new one: Krechevsky argued the same point in 1932 with an experiment modelled on a standard behavioral paradigm. (The experiment is summarized in Hebb (1949), p. 161.) He found that if a hungry rat is confronted with a white and a black door, sometimes on the right and sometimes on the left, with food behind one of them, it will approach the doors systematically rather than at random. During the course of learning the desired discrimination, the rat will 'test' a series of hypotheses: it will persistently try the left door, say, or the black one (whichever side it is on); he may even persistently alternate left and right or white and black. The rat will continue in this way until one of its systematic actions is persistently rewarded--at which point the usual interpretation would be that the discrimination has been learned. Clearly, however, the rat discriminates between the relevant cues from the beginning; what he learns is the way in which they are relevant--the set of implications which will consistently yield food. The danger in such an analysis lies in imputing more control to the organism than is necessary. It is simply acting in response to the implications of previous actions, and, these acts in turn are building up new implications. The systematic nature of the observed behavior results because the organism is responding consistently to the implications, changing the response when the new implications are strong enough to demand it. Thus our 'hypothesis testing' is really metaphoric; the processes we are describing, at least at this level, need involve no conscious processes or explicit awareness of alternatives. What they do involve is a meaning-assigning act of integration, an ordering of the elements in the animal's world into a pattern with implications that will give him a measure of control.

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[2] The joke began with a cartoon in the Columbia University Jester; commenting on it, Skinner (1959) has acknowledged that "The organism whose behavior is most extensively modified and most completely controlled in research of the sort I have described is the experimenter himself" (p. 98).

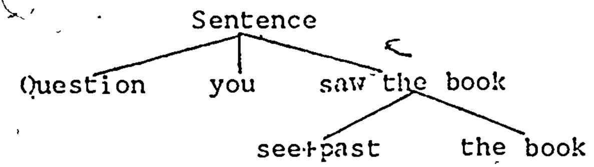
4. The Question of Rules

The action systems of man have progressed to a high level of development. Though as we have already seen the interactions among them are often controlled by field forces, the internal organization of many of these systems is highly regular; the most complex and interesting are those which are thought of as 'rule-governed'. The rules of syntax are one such system; the structures of thought are another. Both are systems of implications derived from previous acts.

Generative Power

We will start with Noam Chomsky's Syntactic Structures (1957), which opened up a whole new approach to language as a finite system of rules capable of generating an infinite set of sentences. Chomsky's basic insight was the recognition that it is possible to assign a structural description to the words in an English sentence that will allow the final 'uttered' sentence to be symbolized as a set of structural indices and lexical entries which are altered by a finite set of ordered rules into an obligatory uttered form. He called the underlying set of lexical items and indices the 'deep structure' of the sentence, the sequence of words actually uttered the 'surface structure', and the system of rules mediating between them the 'transformational rules'.

We can illustrate with a simple example. Consider the two sentences: "Did you see the book?" and "You saw the book." A very simplified diagram of the deep structure of the first sentence would be:



The deep structure of the second sentence would be exactly the same, except that it would lack the structural marker "Question." In going from deep to surface structure, the 'question transformation' would be applied in the first sentence but not in the second; all of the changes would be completely regular and rule-governed--in this case consisting primarily of 'do-insertion'. Two points should be noted: first, the deep structures are identical in all but one element, corresponding to our intuitive sense that indeed the sentences are closely related. This means among other things that all but the one element can be 'handled' or processed in the same way; we do not need two sets of mechanisms even though the surface structure, the sentence-as-spoken, does differ in the two cases. Second, the rules that govern the changes in moving from statement to question in this example can be shown to be of general applicability: one 'question transformation' can be used (in the full set of rules) to generate questions from widely differing statements. Again, this allows simplicity and economy in the mental processes themselves.

A complete set of transformational rules is of course far more complicated than this one short example would suggest. Nonetheless, even the fully articulated system is a model of economy and simplicity compared with the literally infinite system of ad hoc rules that would be necessary if we did not have some explanation of regularities holding between sentences whose surface structures are obviously different but whose deep structures overlap.

Jean Piaget, though choosing to formalize his arguments in a somewhat different way, has traced similar systems of generative rules underlying the thought processes which he has analysed.[3] A good example for our present purposes is his description of the functioning of what he calls an I N R C group during the stage of formal operational thought--which in his theory is the characteristic thought-pattern of adolescence (Inhelder and Piaget, 1958). An I N R C group is a set of very general transformations, in exactly the same sense as the transformations studied in language by Chomsky and his followers. Those of interest here are Identity, Negation, Reciprocity, and Correlativity. In the context of the system of propositional logic Piaget is studying, the negation transformation of 'p or q' would be 'not p or q'; the identity transformation of 'p or q' would be 'p or q'; the reciprocity transformation of 'p or q' would yield 'not p or not q'; and the correlativity transformation of 'p or q' would yield 'p and q'.

These four transformations taken together form what is known as a commutative group; its importance for our purposes is that such a group structure is fully reversible and in one sense fully 'generative'. That is, given the four transformations operating as a system upon a set of elements, all possible combinations of the elements can be generated from any given subset; and having generated any given combination, one can return to the starting point without resorting to any extra-systemic principles.

Again it will help to take a simple example. Say we wish to discover whether sugar makes water taste sweet. The initial or starting position involves two elements and one relationship that we know to hold between them:

1. (sugar added) and (water sweet).

By reciprocity we have another possible combination:

2. (sugar not added) and (water not sweet).

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[3] Piaget's publications are so numerous that general statements about his theory in this and later chapters will not attempt to enumerate them. As a convenient summary and bibliography, Flavell's (1963) analysis will serve for most purposes.

Negation then gives us:

3. (sugar added) or (water sweet).

Finally correlativity brings us back to the beginning:

4. (sugar added) and (water sweet).

Since the third of these steps--(sugar added) or (water sweet)--can be realized either as (sugar added) and (water not sweet) or as (sugar not added) and (water sweet), the system of transformations has given us the full set of possibilities. The four relationships which we have generated from the single relationship with which we began can be displayed in a two-by-two table:

	q	$\bar{q}$
p	pq	$p\bar{q}$
$\bar{p}$	$\bar{p}q$	$\bar{p}\bar{q}$

where p = sugar added
q = water sweet
$\bar{p}$ = sugar not added
$\bar{q}$ = water not sweet

This, like our syntactic example earlier, is a very simple case, but the principles inherent in it continue to be of value in higher-ordered problems where, for example, there may be more elements involved and the full set of possible relationships consequently much larger. The importance of the I N R C group is that it generates the table from a single instance of the problem, thus providing immediately the full set of possible combinations for consideration.

The existence of such generative rules--whether they are called structural or transformational by those who have studied them most closely--has been demonstrated in many different areas of mind. Piaget's investigations have carried him through such diverse areas as conceptions of time, space, causality, and moral development--each in turn treated as a system of rule-governed behavior. Chomsky's investigations have similarly been extended far beyond the syntactic rules with which he began. Phonological theory has been an especially fruitful area of application (Chomsky and Halle, 1968), but some progress has been made with problems of semantics as well. At the same time, A.M. Liberman and his coworkers at the Haskins Laboratories have argued that such a grammatical or rule-governed system is equally necessary to explain the interpretation of sounds even at the acoustic level; a simple 'translation code' will not explain the phenomena they have detailed (Liberman et al, 1967).

Constitutive and Regulative Systems

The rules that emerge from such analyses are what John R. Searle (1969) has called 'constitutive rules'. Beginning in the context of semantics, Searle has pointed out that a system of rules either regulates pre-existing activity, or it "constitutes" an activity "the existence of which is logically dependent on the rules" (p. 34).[4] Games provide a good example of the nature of constitutive rules: moving chessmen around a board 'is' a game of chess only by virtue of the rules of the game. One wins or loses because according to the same system of rules, certain movements count as winning or losing. In our previous examples, the surface structure "Did you see the book?" counts as a question because that is the meaning assigned to it by the system of syntactic rules. Similarly the two-by-two table derived from the simple proposition 'p and q' through the application of the I N R C group counts as a legitimate summary of the possible relationships between the two elements exactly--and only--because of the system of rules through which that expansion is made. Indeed, if we move down the developmental scale, we find that such a proposition is not so constituted by a younger child, who reasons only in terms of the concretely available combinations and does not fill out the table (though, given all four entries, he may be perfectly capable of organizing them as a table). Similarly, if we move up the scale to the derivations of symbolic logic, we find that the legitimacy of such an expansion continues to depend entirely upon the particular system of rules that is postulated. In some systems the transformations of the I N R C group do not hold, and the two-by-two table is again not a legitimate expansion.

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[4] Searle in fact allows constitutive rules to constitute and regulate, while regulative rules only regulate. This blurs the distinction between them and lessens their analytic power; in the discussion which follows the two systems will be treated as distinct in all cases, though coordinated in the context of any given activity.

Constitutive rules give meaning to an action; they do not provide a method for carrying it out. This aspect of an action system is governed by regulative rules that control the path through which an action will be realized. Though the two systems are closely related, they are far from identical: we all know the meaning of some actions which we are nonetheless unable to carry out ourselves. (We recognize the play of a champion chess player, for example, without being able to play championship chess ourselves.) Another simple example will illustrate the opposite point--that the two systems are also inter-dependent: when a baby is given a new toy which he has never seen before, he will reach for it, pick it up, and shake it. This simple movement is in fact quite a complex act, the first part of which involves the toy being recognized as 'something to shake'. This is the application of a system of constitutive rules. The reaching and actual picking it up to shake are part of a second stage, a coordination of motor movements that will be more or less well-developed depending upon the age of the baby. This coordination of movements is carried out through the operation of a system of regulative rules.[5] The point is that the system of regulative rules is dependent upon the system of constitutive rules to give purpose or intention to the action; without first constituting the toy as something to shake, the baby would have had no reason to pick it up at all.

What is emerging here is a point of view very close to Piaget's processes of accommodation and assimilation. The latter is the process by which a new object or behavior is integrated into an old behavioral framework; it is thus given meaning or purpose, is 'defined as' something in the organism's world. The former involves the changes that have to be made if the new object is to be interpreted in that way--the particular grip of the fingers that will be necessary to hold on to the toy, a grip which will be ever so slightly different from the grip used to shake other toys in the past.

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[5] It is this sort of regulative system that Bruner (1968, 1973) has been studying in his work on infancy.

Schemata

In Piaget's terminology, the integrated sequence of acts involved in grasping the toy would be a schema; in an important sense, such performance schemata are systems of regulative rules which cut across systems of constitutive rules operating at different levels of organization. Michael Polanyi (1969) has made this point in discussing what he calls 'dual control': the operation of any system of constitutive rules is governed not only by its own internal order, but also by limits on its applicability that derive from other, prior systems of rules. Thus in speech, Polanyi finds that the "lowest level is the production of a voice; the second, the utterance of words; the third, the joining of words to make a sentence; the fourth, the working of sentences into style; the fifth, and highest, the composition of the text" (p. 233). Each of these phases is subject to its own rules, and the results of each place a boundary or limit on the next lowest level: the voice has to utter the words that make the sentence that has the style that is appropriate to the composition.

At each level, it is possible to study the rules in isolation from their interaction with other levels; this is essentially what Chomsky is doing when he limits his studies to syntactic 'competence', the native speaker's tacit knowledge of the rules rather than his use of them in particular contexts. Chomsky's notion of 'performance', however, is too global for our purposes; as Dell Hymes (1971) has argued, it confuses a negative concept (e.g., 'mere performance') about what goes wrong with behavior, why it is sometimes incompetent, with a second that includes all of the non-syntactic but equally rule-governed aspects of linguistic behavior. Our approach here will be to consider each of these rule-governed influences as an independent system of constitutive rules, and to consider the conventionally patterned schemata which govern overt behavior as regulative rules cutting across these independent constitutive dimensions.

Like all action systems, schemata are made up of a network of implications of previous acts. Piaget concentrated his studies on the developmental aspects of these systems of implications, in the course of his work also detailing many of the interrelationships between regulative and constitutive systems. The I N R C group, for example, is a system of constitutive rules underlying the formal operational schemata that Piaget finds in adolescent thought; it is not itself a schema. In the sugar and water experiment, a subject would not consciously apply the four transformations as we did to fill out the matrix of possibilities; he would have an operational procedure, a system of actions rather than of consciously formulated rules, that would lead him to the same result. It is the validity rather than the mode of operation of this procedure (or schema) that rests upon the underlying constitutive rules (which also validate other schemata with other functions).

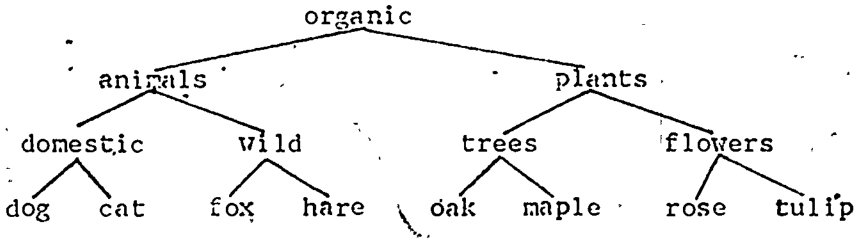
Concepts and Constructs

A schema in Piaget's usage is a pattern of action organized towards a specific end; any given schema may subsume other, simpler schemata and can itself be subsumed by a more complex, superordinate schema. Although in his recent work Piaget has moved toward dividing those which operate at low levels from those of greater generality, we will refer to such organized systems of actions as schemata whatever their level of generality or particularity. This is consistent with the approach we have taken in the rest of our theory of action and will allow us to deal simply with the two further notions which we want to incorporate, 'concept' and 'construct'. Most of the differences between these two terms can be traced to the particular set of phenomena with which each originally dealt; as they have been generalized beyond their original domains the differences between them have lessened. Each is in fact a schema, a system of implications built up from past actions and serving as a template or guide for future behavior.

Kelly's (1955) discussion of his personal construct theory makes clear the extent to which a construct, like a schema, is a system of implications of previous acts. He argues that a construct "psychologically channelizes" a person's behavior and that, channeled in this way, every act becomes a test of the validity of the construct itself. This is simply to say that every act is based upon the implications of previous acts and will have implications of its own: the former provide the 'hypothesis' and the latter the 'test' of its validity. Kelly has taken great care to point out that a construct need not have a verbal label, and that a person may be completely unaware of the constructs with which he is operating. Nonetheless while admitting such an unconscious component in the system, the constructs which have been studied most frequently and in greatest detail have been those with quite widely accepted verbal labels: constructs like kind-cruel, motherly-fatherly, self-not self, friendly-antagonistic (cf. Bonarius, 1965; Bannister, 1970).

Partly because of this emphasis in the supporting empirical work, construct theory has moved much closer to theories of conceptual development than Kelly himself had anticipated. One of his primary concerns in separating constructs from concepts was to point out that in addition to the traditional notion of inclusion and exclusion associated with a concept, there is also a clinically important distinction between things to which a construct is relevant and those to which it is not relevant. Taking as one example the terms 'male', 'female', and 'time of day', Kelly argued that the construct 'masculinity' would be relevant to the first two but not to the third, whereas in concept theory 'masculinity' would include 'male' but exclude both 'female' and 'time of day'. He used the term 'range of convenience' to refer to the full set of elements to which the construct could be relevantly applied, and 'focus of convenience' to specify which of the items within the range a construct had originally been formulated to distinguish between.

Yet although Kelly's discussions are valuable for making the distinction explicit, he exaggerates the difference between traditional theory and his own. For in fact the notion of range of convenience is implicit in the hierarchical and classificatory emphases in traditional theory: to build a hierarchy of elements is to implicitly define the range and focus of convenience of the concepts in the hierarchy. An example will illustrate the point, in this case a simplified classification of organic matter:



If we recall that the focus of convenience in Kelly's theory refers to those elements that a particular construct most directly distinguishes from one another, we can see that it corresponds to those elements which are subsumed by the same immediately superordinate concept in the hierarchy. Thus 'dog' in this simple example separates dogs from cats; 'tree' separates trees from flowers; 'animal' separates animals from plants. Range of convenience, on the other hand, becomes really all elements which are in the same hierarchy but which are not in a relationship of superordination. Thus 'dog' has as its immediate range of convenience 'cat', 'fox', 'hare', and 'wild animals'. By moving up the hierarchy the range of convenience can be expanded, but the new elements brought in at each stage will be progressively less relevant to the original distinction; finally they will be 'out of range'. (It is less relevant to apply the concept 'dog' in the context of wild animals than in that of domestic animals; less relevant still to apply it in the context of plants; and probably totally irrelevant to apply it to inorganic things.) The precise breaking point is arbitrary here, but it is arbitrary for Kelly as well.

Kelly's concern with the problem of verbalization, in particular that concepts were labelled and constructs need not be, is directly related to the focus of convenience of the two bodies of theoretical work. Concept theory has been most interested in problems of classification and this has carried with it the notion of names for categories; verbal labels have been taken almost for granted. Kelly on the other hand was interested in interpersonal behavior, an area in which much more of the behavior studied reflects unconscious and unlabelled patterns of action. Nonetheless as we have noted Kelly and his followers have concentrated considerable attention on verbally labelled constructs; and conversely, cognitive psychology has turned its attention to nonverbal behavior as well. Thus Bruner in his lectures on infancy (1968), for example, is concerned with such skills as sucking, grasping, and looking because he sees in them examples of nonverbal conceptual learning. In his words, the "practice of variants of a skilled act is, in effect, practice with instances of a concept" (p. 30). In arguing such a point, Bruner is following Piaget, whose own notion of 'schema' evolved out of studies of nonverbal behavior in infants.

Contrastive Pairs

What Kelly's theory of personal constructs does achieve is to throw our emphasis squarely back upon the problem of relationships between concepts. Concerned with allowing 'constructive alternatives' in a therapeutic context, Kelly insisted that constructs should be regarded as bipolar: it is only by seeing an element in relation to its alternatives that it can have any meaning for us at all. For this point we can muster arguments from sources as diverse as linguistics, cybernetics, and even other contemporary theories of psychology (cf. Lyons, 1969; Osgood, Suci, and Tannenbaum, 1957), but Claude Levi-Strauss' (1966) ethnographic analysis of totemic classification systems is one of the more interesting. He takes pains to demonstrate that contrasted pairs are a natural and powerful tool in the construction of systems of constitutive rules, which in turn serve to simplify the world by ordering it into predictable patterns. Summing up roughly half way through his argument, Levi-Strauss writes:

> All that I claim to have shown so far is...that the dialectic of superstructures, like that of language, consists in setting up constitutive units (which, for this purpose, have to be defined unequivocally, that is by contrasting them in pairs) so as to be able by means of them to elaborate a system which plays the part of a synthesizing operator between ideas and facts, thereby turning the latter into signs. The mind thus passes from empirical diversity to conceptual simplicity and then from conceptual simplicity to meaningful synthesis. (p. 131)

He goes on to point out, however, that such a system will be further elaborated through adding contrasts at the major poles until it is as detailed as need be for its ordering and predictive functions. Dennis Hinkle (1970), a former student of Kelly who has been especially concerned with the relationships among constructs, seems to have arrived at a similar point: "The number of possible contrasts for a concept is potentially infinite. Kelly's constructs seem to reflect the usual contexts of discrimination: the more frequent sets of contrasting concepts used by a person. To be sure, this is not how Kelly thought of it" (p. 105). It is, however, how we will think of it; it is the last stage of our bridge between concepts and construct theory. While we will continue to use the terms more or less separately in the contexts of the theories which have developed them, we should recognize that we are in all likelihood studying the same mechanisms from slightly different vantage points. Gross discrepancies between cognitive psychology and construct theory should be cause for concern.

Organizing the World

When we classify something as an instance of a concept, we are predicting that its characteristics are consistent with those on which the concept is based. These characteristics are themselves part of the implications of previous uses of the concept, and in turn guide our use of it in the future. The label that is attached to a concept or construct is simply that, a label; the functional aspect is the network of implications that lies behind it. What this means may be more evident if we take as an example the development of the concept 'mother'. For the young baby, 'mother' is likely to be a signal that comfort is at hand, that he will be cuddled, fed, and changed. These expectations are the system of implications that go with 'mother' and shape the way the baby behaves when he hears the word. Eventually the baby will be comforted by other people, and 'mother' will appear at times without offering comfort. Such actions will establish new implications for 'mother': it may signal 'the lady who feeds me', or perhaps just 'any lady'. Later it will mean the particular lady others call his mother, and still later, as he hears 'mother' used to describe other people's mothers, its implications will have to change again.

A concept, construct, or schema is a system of regulatory rules, a guide to performance, embedded in a system of constitutive rules that give meaning to it. Attaching a label to such a schema creates the possibility of placing it into new contexts, and thus of creating new systems of implications. If we continue with our example of 'mother', we note that the system of implications at any given point in time is a product of the element 'mother' with all of the other elements (and their systems of implications) that are also constituted as relevant. If we say "Mother is beautiful," we are creating a system of implications in which the implications of beautiful are subsumed as part of the implications of 'mother' (which may or may not be consistent with the implications that are already subsumed there!). We can just as easily say "Mother is ugly," and create a different system of implications altogether.

It is not a new observation that language is our way of organizing and reorganizing our world, but it is an important one and worth repeating here. Michael Polanyi (1958) sees it as the difference between man and the rest of the animal world:

> It now appears that the intellectual superiority of man is due predominantly to an extension of this power [to reorganize memory] by the representation of experience in terms of manageable symbols which he can reorganize, either formally or mentally, for the purpose of yielding new information. ... To speak is to contrive signs, to observe their fitness, and to interpret their alternative relations; though the animal possesses each of these three faculties, he cannot combine them. (p. 82)

Syntactic rules, then, are ultimately relational: they determine the form of the 'product' that results when the many sets of implications symbolized by the words in a sentence are concatenated into a new structure. (Cf. McNeill, 1970; Leman, 1970; Britton, 1970; Halliday, 1968.)

It is this which makes man's ability to manipulate symbols so important. It allows him to control the systems of implications through which he views the world. Each of his symbol systems consists of a set of elements (the symbols) and a set of rules for reintegrating them into new forms. It matters little whether the symbol is 'motivated', bearing within its structure some suggestion or reflection of the implications it carries, or 'conventional', assigned arbitrarily but consistently to a given system of implications. 'Image', 'sign', 'symbol', and 'signifier' are all part of the same spectrum, differing in the degree to which their systems of implications are public or private, well or poorly defined, arbitrary or motivated, verbal or visual. Each is part of a schema in our general sense of the word; each has its own implications for future acts, its inherent hypotheses about the results of behavior, and its own possibilities for subsuming and being subsumed by other schemata.

The systems of rules which we have been describing operate, in Polanyi's (1958) terms, tacitly: our attention is focussed through them to a goal. Because we do not focus on them directly, we are often completely unaware of their nature. Through them we shape our understanding of the world without even realizing that we have thus created the world as we know it. It is on this process of creation that we have been focussing in our theory of the implications of acts, for it is the patterns of implications rather than their conscious formulations as rules that are important.

Models

Two further aspects of the learning of rules seem important to note at this point. The first derives directly from the fact that implications are built up by doing something: what we have done in the past often forms a model for what we will do in the future. Piaget (1951) has noted that one way in which a child extends his repertoire of actions is through imitation; and imitation is simply the following of a model. He treats this as an excess of accommodation over assimilation, since the child who is imitating is usually focussing on the action itself--in Polanyi's terms, the model has become focal rather than subsidiary. Only as the motions are internalized do they begin to be used in the service of some larger goal. Thomas Kuhn (1962) has used a similar mechanism as an analytic device in the history of science; he traces changes over time to shifts in the underlying 'paradigm' or model on which all 'normal science' is based. Such a paradigm, though parts of it may be made explicit, consists largely of unformulated assumptions about what is and is not a proper sort of question or mode of explanation. The Darwinian theory of evolution is one good example of the operation of a paradigm powerful enough to have influenced many fields of enquiry. Scholars who began to treat history, psychology, and sociology in 'evolutionary' terms did so not because Darwin offered a new ~~set of~~

explicit procedures for their disciplines, but because he provided a new model of the sorts of questions which could reasonably be asked.

The Elaborative Choice

The second aspect of rule learning that we want to note here is one that Kelly (1955) has treated as 'elaborative choice' and Bruner (1968) as 'restriction of the degrees of freedom'. The point is that in confronting a problem we usually have more resources at our disposal than we can skillfully coordinate; we usually proceed by arbitrarily restricting the variables which will be considered as relevant to our solution, gradually adding new ones only after our mastery of the first set has been assured. Bruner recounts many examples of such processes in the development of reaching behavior in infants. In one series of investigations, the child of ten to twelve weeks was found to 'swipe' at an object held within its reach, with fist tightly closed and elbow locked. By three and a half to four months, the baby will often reach with hands wide open, the reach closing when the object is at the midline of the body, and the hands closing at contact. Even as late as seven months vision may be restricted to the period of launching the reach, with gaze-aversion or eye-closing following quickly after. Rigid joints, orientation around the midline of the body, eye closing or gaze aversion all serve to limit the degrees of freedom, reducing the number of elements to be controlled and thus simplifying the problem. Only as the task is mastered in its simplified form will the degrees of freedom be increased by, for example, keeping the eyes open, bending the elbows, or unclenching the fists.

Kelly makes essentially the same point within the context of his construct theory. He argues that the normal pattern of construct change is an extension of the system to include new elements followed by a period of redefinition and mastery within the constraints of that extension. The decision whether to expand the system or to work out the implications within its present limits is what he has called the elaborative choice--a choice ordinarily governed by whether further mastery of old elements or the addition of new factors to the system is more likely to lead to increased control. Both processes are valuable: if a system simply extended its range without working out the implications, it would quickly become unworkable; if it never extended its range it would be unable to adjust to changing circumstances or to extend its control to new areas. (Cf. Kelly, 1955; p. 65.)

Piaget's description (1951) of play as an excess of assimilation over accommodation relates to this need to elaborate implications within a given set of restrictions on the degrees of freedom. Play is a process of gaining mastery, a working out of the full set of implications of a given action system. One would thus expect to find, as we do, that play is concentrated around new or difficult experiences, elements that have not yet been fully mastered or fully integrated into the action schemata. Rather than expecting it to die out (as Piaget argues), we should expect to find play (as elaboration) occurring throughout life in the context of new skills or new concepts, though its 'childish' nature may be masked by the seriousness of the concepts themselves. And in fact we do find such elaboration: it is the process Kuhn (1962) has called 'normal science', the working out of the details within a paradigm; it is the taking up and over-working of a generative idea that Langer (1942) has noted in intellectual history; and it is at least a part of the function of literature, as we shall see in the next chapters.

CHAPTER II

THE MODES OF DISCOURSE

1. The Social Context

The Child's World

In our discussion so far we have given only passing attention to the social context within which the individual functions. This was a useful strategy while laying out the important characteristics of acts and action systems, but it is misleading and must now be abandoned. George Herbert Mead pointed out as long ago as 1934 that the control over the environment which an individual achieves through his acts is in fact a social control. A person's very existence as an individual, his recognition of himself as a self, his language, his thought, his resources are products of social rather than individual actions. Or to return to Langer's (1967) terms, man reaches his highest individuation only through his involvement with the society and culture of which he is a part.

The social relationships in which a child is engaged from birth provide the context for the imposition of a socially given 'common-sense' or 'everyday' reality (Berger and Luckmann, 1967). Though we argued earlier that an individual creates his own world through the consequences of his actions, in fact for the child those consequences--and hence that world--are to a large extent predetermined. The elements of the world are defined as elements and their use is demonstrated, first through gestures and manipulation, later through labelling and verbal instruction. (Thus a bottle is constituted as 'something to drink from' because the mother has put its nipple in the child's mouth; later a glass which he has never seen will be similarly constituted simply by so labelling it.) Though our knowledge of the physical world, in particular of the various constancies which Piaget has studied, may require immediate, individual experience with objects, our knowledge of the constitutive and regulative rules which give meaning to those same objects is built up socially. We do not as individuals have to rediscover that water is for drinking, blocks for building houses, ice for making drinks cold; these are all part of the world that is handed on to us socially and 'objectively', as a reality which is interpersonal and independent of individual volition.

Much of the knowledge which is passed on by society is never made explicit to the child though it shapes the actions and reactions of those around him: one of the most obvious areas is our knowledge of the proper forms of social behavior. Because this knowledge tacitly structures the behavior of those around the child, his world will have a consistency reflecting that structure. And this in turn will mean that his own acts will have a consistent system of implications (in the sense of the previous chapter) built up around them, a system which is his knowledge of the governing social conventions. This process of primary socialization (Berger and Luckmann, 1967), the learning of roles and role relationships within a particular culture, is again characterized by the lack of choice open to the individual. Role relationships are imposed from without rather than generated from within: however many choices there may be within a society as a whole, those open to the child are more or less fully determined by his own family structure.[1] The progressivism of a child from a progressive family is just as thoroughly predetermined as the conservatism of a child from a conservative one; to raise a child to make his own choices is still to place him in the role of 'one who makes his own decisions'.

The actions of the young child are centered around himself and he fully expects the actions of others to be similarly centered. This is especially evident in his language, which until about the age of seven ignores most problems in communication: the young child knows what he means to say and assumes that those around him will understand him too. Piaget, who dealt with this phenomenon at length in his early work (1926), called the language of the child 'egocentric' to indicate the extent to which it ignores the demands of roles and is centered on the self. Though Piaget emphasized the self-centeredness of this speech, Vygotsky (1962) later pointed out that such egocentric speech is nonetheless a part of the child's social rather than his individual behavior. However poorly the child may understand the requirements of the others to whom he is speaking, speech at this stage remains very much speech for others and not for oneself.

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[1] For explorations of the longer-term implications of the various forms of parental control, cf. the work of Bernstein (e.g., 1972) and Douglas (1970).

Gradually the child does increase his understanding of the people with whom he comes in contact (Flavell _et al_, 1968). George Kelly (1955) called it learning to construe the construction processes of others; Mead (1934) dealt with it as an internalization of the roles which the 'other' fills. Both mean simply that a person builds up expectations about how people will behave in certain kinds of situations; these expectations are the 'rules' which constitute or give meaning to behavior in a social context, allowing any given action to be interpreted as proper or bizarre, helpful or disruptive, friendly or antagonistic. The _particular_ rules of course vary from society to society, but the existence of such rules is a condition for the very existence of a social group.[2]

The learning of these social rules coupled with the development of language leads eventually to _self_-consciousness, an awareness of the self as distinct from the other. Part of this is a result of the

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[2] We are only just beginning to recognize the extent and complexity of these tacit social rules. Cf. Mary Douglas (1972), who gives an analysis of the detailed rules that underlie what we consider a 'proper' combination of foods for a meal at varying times of the day. Other such systems are explored for their effect on language behavior in Giglioli (1972).

'objectifying' property of language, its ability to focus attention on an object and thus to make it something outside of the person doing the focussing. When we say 'That's me', for example, we are referring to something which is external to the self; this is Mead's (1934) point when he distinguishes between the acting 'I' and the more objective 'me' which the 'I' can recognize. This ability to focus on the 'me' is above all the ability to turn our knowledge of social rules back upon ourselves, to judge our own words and deeds in the light of the way we think others will react to them. Such assessment is the requisite first step towards the conscious control of our own behavior, and a concomitant emergence of problems of ethics and values.

The distancing of the self is a special case of the ability of language (or more generally, of Mead's (1934) 'significant gesture') to evoke the same reaction in both the speaker and hearer. The speaker is able to 'listen to himself', to judge what he says by the criteria that he would apply to something which someone else said to him. And if his knowledge of others is good enough, he may be able to apply several different sets of external criteria to his utterances: even a child knows that certain things he says will raise his prestige among his friends, and plummet him immediately into trouble with his parents and teachers.

Where does all of this leave us? With the proposition that the individual in fact creates his world out of the implications of his acts, but those implications are themselves socially determined in the most important areas of his life. The consequences of any given act are normally not mediated impersonally through the physical environment--though some may be--but through the reactions of the people with whom a person is in contact. These people induct the child into their social world, in the process passing on the forms of their society, the constitutive and regulative rules of the physical and social world as they know it. This is not to argue that society is inherently conservative and unchanging; only to say that that is its essence for the child. Each child is inducted into the social reality that exists at a given place and a given time, and as a child he has little to say about it.

Reciprocity

The central place of language in the social process should be obvious, but it will help to clarify the relationship if we look for a moment at the common matrix out of which they come.

The prototypical social situation is the face-to-face encounter (Goffman, 1964); from this all later forms derive.[3] The first and most important encounter is that of the infant with a responsive adult, an encounter which leads to what Bruner (1968) has called a sense of 'reciprocity' in the infant, a feeling of assurance that his actions will provoke a response. At a very early age the child learns to expect an adult to respond to his crying, smiling, eye-contact, or vocalization; in turn it will begin to respond to regularity in adult behavior. Such processes are important enough for even the new-born infant that striking differences emerge between the behavior of children raised for ten days in a hospital nursery and those raised with a one-to-one caretaker. The latter, who come to expect reciprocation, respond much more quickly to a day-feeding and night-sleeping schedule, cry less, and adjust better to home life (Bruner, 1968; pp. 57-58).

Reciprocity centers around gestures intended to produce a response in another person; they are the most primitive form of communication and one which man shares with lower animals. (The rat in a Skinner box, like the child in his crib, expects to be able to control events through his gestures.) Out of the first instinctual expression of undifferentiated distress or pleasure (Spitz, 1963) will eventually evolve the highly specialized symbolic systems of the adult--foremost among them the system of language but including nonverbal systems as well. The evolution begins almost immediately, with a process of 'conventionalization' in which the gesture is simplified and its intensity reduced as its use becomes more and more intentional (Bruner, 1968; p. 58). Long before language as such emerges, a highly elaborate and effective system of gestures is usually present between mother and child, a system of mutual understanding that is often obvious to the observer and yet completely undecipherable by him. In this context a baby's first words are not its first communication, but simply an extension of processes already comfortably underway.

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[3] Goffman's work is the primary source of descriptions of the 'encounter', but cf. Berger and Luckmann (1967): "The most important experience of others takes place in the face-to-face situation. All other cases are derivative from it" (p. 43).

The social context in which the individual learns the rules of language insures that he in fact learns the 'proper' rules, those that will allow him to function effectively in the social context itself. Each time he uses language, whether as producer or receiver, he performs an act which will have evident consequences in the response of the other people involved in the encounter. The words which he hears raise expectations in him, and the words he speaks produce responses--and both are accurate only if his set of rules for language use is sufficiently congruent with the sets which others are using. His first attempts will of course be crude, but they will not be totally ineffective. Much like Bruner's even younger children learning to grasp a ball dangled in front of them, the child learning language will restrict the complexity of the problem, accepting a limited solution because it is the best he can handle. As he gains mastery he extends his range, complicates the rules, and gradually, over time, develops a system which is congruent with that of those who share his social world. This language will eventually be superimposed on the nonverbal communication between mother and child out of which it grows, the communication in the process being both enriched in content and extended in range; but the characteristic element of reciprocity and mutual understanding continues to play a central role.

2. The Expressive Mode

Language used under conditions of reciprocity is the beginning of what James Britton (1970) has called the 'expressive mode' of language use. Extending Sapir's (1966) original contrast between expressive and referential uses of language, Britton formulated the expressive as essentially language that is self-expressive, contrasting it with 'expressionless' discourse which does not reveal the feelings of the speaker or writer. Much of this expressiveness originally derives from nonlinguistic considerations, from the eye-contact, facial expressions, posture, and gesture that are an important part of the reciprocity of the face-to-face encounter for the adult[4] as well as the child; much too derives from intonation patterns and inflections that--and this was Sapir's point--have nothing at all to do with the referential meaning of the utterance. All of these things tell us about the speaker's attitude without presenting it analytically, and in that sense they tell us about the speaker himself. On the other hand, one must recognize that the mutuality and reciprocity of the expressive mode conveys a meaning that has much the same force that more referential modes might. If someone asks us what we think of Jerry, and we reply "Ugh," we have made a comment about Jerry that is in its own way quite precise. The difference between saying "Ugh" and saying something like "Jerry is very objectionable because..." is one of the degree of mutual understanding which the speaker and listener can assume. In saying "Ugh," the speaker is assuming that his listener knows him well enough, shares enough of the same world, that "Ugh" will be sufficient comment; and if that assumption is wrong, the listener will counter, "Now what do you mean by that?" The meaning-bearing aspects of the expressive are especially evident in the animal cries which have been the traditional example of expressive as opposed to referential communication (e.g., McNeill, 1970; p. 40). The shriek of rage, the cry of pain, the scream of terror--each is a communication to which other animals respond correctly,[5] just as the mother and child develop a series of expressive cues that guide their interaction. The mother will know when to look for a loose pin, when to burp the baby, when to feed it, and by the same means the baby will know whether the mother is frightened or happy or tired.

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[4] Cf. Berger and Luckmann (1967): "My and his 'here and now' continuously impinge on each other as long as the face-to-face situation continues. As a result, there is a continuous interchange of my expressivity and his. I see him smile, then react to my frown by stopping the smile, then smiling again as I smile, and so on. Every expression of mine is oriented toward him, and vice-versa, and this continuous reciprocity of expressive acts is simultaneously available to both of us. This means that, in the face-to-face situation, the other's subjectivity is available to me through a maximum of symptoms. ... All other forms of relating to the other are, in varying degrees, remote."

In all of its later, more highly developed forms, this mutual understanding remains at the core of the expressive. It is always a mode of social encounter in which the participants are able to rely upon shared interests, mutual experience, and common goals and objectives. Under these conditions of mutuality the characteristics of the language change to take advantage of the congruity. Britton (1969) has presented lengthy transcripts of conversation in the expressive mode, summing up at the end of one of them:

> The language remains 'expressive' throughout, in the sense that it is relaxed, self-presenting, self-revealing, addressed to a few intimate companions; in the sense that it moves easily from general comment to narration of particular experiences and back again; and in the special sense that in making comments the speakers do not aim at accurate, explicit reference (as one might in an argument or sociological report) and in relating experience they do not aim at a polished performance (as a raconteur or a novelist would). (p. 96)

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[5] Thus Mead (1934) has commented on expressive cries: "They did not at bottom serve the function of expression of the emotions: that was not the reason why there were stimuli, but rather they were parts of complex acts in which /the animals/ were involved. (p. 156)

Though Britton's emphasis here is on the 'self-revealing' aspects of the talk he is analysing, this self-expression is in the service of a larger goal: in this case the goal of coming-to-terms with the problems raised by a Hemingway short story. The girls in Britton's transcripts reveal their thoughts and feelings to one another largely to have them sanctioned by the group, to be reassured, as one of them puts it, that "that's part of growing up" (p. 92), and at the same time to increase their own understanding. The other aspects which Britton notes, the fluidity, informal style, and lack of conscious direction, are all related to the extent to which the expressive mode assumes a common world-view from the very start. The girls understand one another quite well, reacting in very much the same way to one another's comments; and it is this common culture, this view-of-the-world, that they are 'working upon' in their expressive talk, maintaining and at the same time extending and refining it in the light of the experience with which they have been confronted.

Pressures on the Expressive

The expressive is always tied in this way to Berger and Luckmann's (1967) 'common-sense world'. When this world is not present, when one or another of the participants no longer understands or no longer accepts its conventions, the language will be subject to new demands as the group attempts to understand one another. We can make the point best, perhaps, by elaborating an example from Basil Bernstein's (1972) discussions of the restricted and elaborated codes[6]; contrast the talk between a husband and wife who have just emerged from the cinema with that by the same couple talking to a friend who has not seen the film. The first will be short, expressive, relying on their common knowledge of the film and of one another; the second elaborated to extend the experience to someone who has not had it. This elaboration will be necessary simply because the common world no longer exists: however well the couple may know their friend, they do not have the experience of the film in common and therefore, if they are going to talk about it at all, must talk about it in a different way.

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[6] His 'restricted code', though derived from rather different theoretical considerations, to some extent overlaps our expressive mode.

Still the difference is one of degree rather than of kind; if they know their friend well the discussion will rely heavily upon the relationship they have built up, on their shared world. Though it will be more elaborated than that between the couple alone, it will still be firmly embedded in the context of their particular personal relationship. The friend will be free to break in, to make his own judgments, to change the topic completely, and the couple will view such changes as perfectly natural. If, on the other hand, the husband and wife leave the theatre and head to a newspaper office to write a review, the language they use will be more formal still. In this case the context will be more or less fully destroyed, and the discussion will leave little to expressive and nonverbal cues.[7] There is no longer one or even several persons being addressed, simply an amorphous, unknown, generalized other. This continuum reflecting the extent to which the speaker and listener, the I and the you, share a common world is closely related to the first of the dimensions of language use which we will develop in the next section of this chapter.

The need to share an experience which is not held in common is not the only source of pressure on the expressive. As our husband and wife leave the theatre, they will probably be asking, "Now what do you make of that?" If they share the same values, their first reactions will be very much in congruence. The exchange will thus be a sanctioning process: each will objectify his reactions through language, and have this 'objectification' confirmed by a congenial other. Of course there will be some differences between the reactions of the two, just as there were differences in the reactions of the girls in Britton's transcripts. These differences as well as the overall similarity of response will emerge to be reconciled: some parts of the film will have registered more fully than others, early parts will have been forgotten and need to be recalled, misunderstandings will be straightened out. In the end, if they have had a good discussion, each will have a clearer reaction to the film as a whole. They will have fitted it into their view of the world, assimilated it, and come to understand its message. In a very real sense, they will have given it the meaning which it will have for them. The important point is that this assimilation is directionless; they begin to talk simply because they have had an experience which they want to understand, and no one has a special point to make or a predetermined direction in which to carry their conversation. They may decide they 'like' the film, or that it was poorly constructed; and they may, if it was very powerful, not talk about the film at all, but only the experience within it.

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[7] Even here there is a context built up over time with the reviewer's regular readers, allowing a 'familiarity' and certain assumptions about shared experiences and reactions. A similar familiarity may simply be claimed as an attention-getting rhetorical device.

But let our couple go on to the home of their friend. When they begin to talk with him, if they have already 'talked it through' on their own, they will have a set interpretation they will want to convey. They will organize their discussion to make their point rather than offering up a neutral reaction. Instead of accepting freely their friend's objections, they will probably attempt (not necessarily consciously) both to anticipate and to meet those objections before they arise. They will have a point to make, and the characteristics of their talk will shift accordingly. Once again they will have moved away from the expressive center, this time because the couple has assimilated the film in a specific way while their friend has not as yet assimilated it at all. This concern with making a point, with controlling the way in which the listener assimilates or responds to or accommodates himself to an experience, underlies the other major dimension that will be part of our model of language use.

To sum up, the expressive mode is the mode of building our common-sense world through social interaction. In it we are able to make maximum use of expressive cues and have a minimum of commitment to any one solution to a problem that may arise. If we have any commitment at all, it is simply to handling the experience, to fitting it into our world and thus in the process maintaining that world even as it is altered and extended. The expressive is thus the mode of gossip (in a positive rather than pejorative sense), of making sense of the world and of one another. Its very fluidity makes it a starting point, a mode out of which the rest of our modes of language use will be developmentally differentiated. This development will not mean, however, that the expressive will be superseded by other modes; simply that other modes come to exist along side of it. To curtail the expressive, to allow its forms to deteriorate rather than to mature, would be sharply to inhibit the development of the individual himself.

Inner Speech

We have been concerned with the expressive as a social phenomenon, and we will continue to use it only in those terms--as a discourse addressed to, at the least, a congenial other. If Vygotsky (1962) is right, however, when he argues that egocentric speech is gradually internalized and transformed from a social to an individual phenomenon, then it is probably accurate to argue that the expressive continues in an internal as well as an external form. The 'inner speech' which Vygotsky postulates would allow the individual to carry on an expressive dialogue with himself, one that would have all of the advantages of the social dialogue with which we are concerned, but whose condensation could be even greater since the shared worlds of the 'participants' would be in fact identical. However effective this internalized expressive mode may be, it is still clear that it is not in itself enough. We remain a social animal, seeking social support and social confirmation of our view of the world even after we have internalized that world as fully as we are able. The internal dialogue is never able to replace the external one; even the monk and the mystic 'commune' with their gods. When we work something out on our own, we check it by presenting it to others, and when we cannot work it out, we ask for social support.

3. Participant and Spectator

It is now time to lay out more precisely the dimensions of our model of the modes of discourse and to argue that each mode has implicit in it a particular mode of construing. Our concern will be with discourse as social interaction through a symbolic medium--including gesture, the arts, and language in all of its specialized forms. Because there is no set of generic terms applicable to all of these realms, the discussion itself will be developed and illustrated with respect to the field of immediate interest, language. If the analysis is sound, however, it should be possible to replace such words as 'author', 'reader', and 'work' with their equivalents from the other realms of discourse.

This broad view is possible because our concern throughout this section will be with the uses to which various conventions and techniques of writing are put by an author, rather than with the nature of the techniques themselves. We are looking for the purpose of the discourse, its implicit contribution to our individual or cultural lives, rather than for the way in which that purpose is achieved. In most cases we will find that a given mode of discourse will have a corresponding set of conventions, just as in the expressive mode we noted such things as condensation, fluidity, and reliance on what we called 'expressive' rather than 'referential' meaning. Usually these devices, however, are neither necessary to a particular mode nor limited in their use to it alone. We find expressive devices being used for rhetorical effect in highly differentiated, formal writing, just as we find highly referential discourse within the expressive mode.

The poles of the first dimension of our model of language use have often been noted: they are Langer's (1942) distinction between presentational and discursive symbolism, Burke's (1966) between the semantic and poetic functions of language, Sapir's (1966) between expressive and referential forms. The problem with such distinctions is that in most cases they have been made on the basis of the form rather than the purpose of the discourse, and it is purpose which we wish to consider here. We must decide whether these two modes, the one preeminently that of science and the other that of art, are more than simply different means to the same ultimate ends.

The Onlooker

D.W. Harding (1937) provides one approach to the problem in his discussion of "The Role of the Onlooker." He argues that when one is just 'looking on', one is able to evaluate an event in a way that a participant cannot; if the onlooker is more detached, less involved, he is also more comprehensive in his point of view. Precisely because he is not called upon to come to a decision, to act, he is able to suspend judgment until he can offer a full response. The participant, as participant, is called upon to use his values, beliefs, and modes of action toward the immediate ends entailed in the particular situation. He seeks to 'handle' or 'survive' or 'control' the events in which he finds himself. The spectator, as spectator, brings his values and beliefs to bear upon the experience in order to 'evaluate' or 'comprehend' the events which he is watching, to fit them into his view of the world and to adjust that view so that it will coherently explain them.

The choice of participant or spectator roles involves an all-or-none decision, but it is an arbitrary one mediated by the conventions or rules-of-use governing the situation in which we find ourselves.

Harding notes in a later discussion (1962) that when an author "chooses to depart from real possibilities we might say with Coleridge that the reader is called on for a 'willing suspension of disbelief'. But it makes less of a mystery of the process if we say that he is willing to participate in a recognized mode of communication, an accepted technique for discussing the chances of life." This communication is governed by a system of regulative and constitutive rules which give it its meaning. These rules in turn are part of what John Lyons (1969) has called the context of the discourse, "the relevant conventions, beliefs, and presuppositions 'taken for granted' by members of the speech community to which the speaker and hearer belong" (p. 413).

Vygotsky (1971) in writing about the psychology of art has provided an example illustrating the effect of such context:

> Let us take as an example a fable attributed to Aesop: "It is said that monkeys give birth to two little ones. The mothers adore one and hate the other. They smother and pet and choke the loved ones in their hairy arms, so that only the hated ones live to grow up." For this realistic account to become a fable, we would have to narrate it thus: A monkey once gave birth to two little monkeys. She loved one and hated the other, and so on. Why does this manipulation change the story into a fable, and what do we add to the story to change it into a fable? ... When I am told the general story of the monkeys, my mind reverts quite naturally to reality, and to wondering whether or not the story is true. I process and evaluate it according to an intellectual technique which I always use to acquaint myself with a new idea. But the story about one single monkey works in a different way. I perceive it in a different fashion, immediately isolate this case from everything else, and relate to the case in such a way as to make an aesthetic reaction possible. ... We are dealing here with a special, strictly conventional reality. (p. 115)

Such conventions operate through the mutual acknowledgement of them by the author and his audience, but like those governing social roles they are usually tacit and below the level of consciousness. We are made aware of them only when, for example, we watch a child who has not as yet learned them fully, or a writer such as Vygotsky who is interested in the rules for their own sake.

Sometimes too we deliberately terminate the mutual acknowledgement and use a discourse in ways for which it was not intended, but in so doing we bring a different set of rules and conventions to bear upon it. Thus we can read Defoe's Journal of the Plague Year as a work of literature, or we can use it as a source of information about the plague; in the first case we are using it in the spectator role, in the second, in the participant. The shift this brings about is dramatic: in the spectator role we may find it an exciting tale, but in the participant throw it away in disgust when we discover that it is not a first hand account after all. We ask different questions of discourse in the two roles, bring different sets of criteria to bear upon them, and take away quite different impressions.

Transactional Form

If we begin with Harding's distinction and separate language used by or for the spectator from that used by or for the participant we are a good way towards a solution of our problem of modes. The point to note is that in the spectator role discourse is presenting us with something to look at, to judge or reflect upon, whereas in the participant role discourse is directed towards an end outside of itself, towards getting something done. In one case we have a carefully structured 'event' or 'experience', in the other a tool applied to a problem. In the expressive mode language moves back and forth between the two roles, though it never attains the formal characteristics of either. Gossip--again in its non-pejorative sense of casual talking-things-over--is the clearest example of this aspect of the expressive mode, and it has been used as such by both Britton and Harding. We can tell a bit of a story, make a comment, offer a suggestion all within the context of the reciprocity and mutuality of the expressive mode. As Harding (1962) puts it, "The gossip implicitly invites us to agree that what he reports is interesting enough to deserve reporting and that the attitude he adopts, openly or tacitly, is an acceptable evaluation of events" (p. 137). We can also move very easily out of the expressive, becoming caught up in our story and developing its form and shape, or, in the other direction, making the argument or information we offer more explicit and precise. In either case we have a speaker who assumes less about the common-sense world of his listener, a lessening of dependence upon expressive cues, a sharpening of the formal properties of the participant and spectator roles.

When we are in the participant role, using discourse as a tool, this sharpening takes the form of increasing dependence upon what Langer (1967) has called 'objective' as opposed to 'subjective' feeling. Her point is close to Mead's about the I and the me: something which we see as objective is simply something which seems to have an existence outside of the self, something we can step back from and examine. Language in its participant role has the ability to objectify in this sense, to create an argument that is external and which will effect each person in much the same way. The less the discourse relies upon the shared world of the expressive, the more external it will be, the more objective, the more universal in its comprehensibility. The person cannot be removed from the process altogether, of course; there is always Polanyi's tacit component, a reliance upon the conventions of logic and language that cannot be eliminated without eliminating all meaning too. (These are the processes we looked at in the previous chapter with our examples from Piaget and Chomsky.) Still there is a level at which the tacit component has been reduced to the point that the language seems to be totally explicit, totally objective, totally defined.

Another way to make the same point is to consider the systems of rules that are brought to bear in a given discourse. The more a discourse is being used as a tool, as a mode of explicit argument or analysis, the higher the proportion of the applicable conventions that will be fully specified in the argument and its context. Symbolic logic and mathematics represent the fullest development of this form, where the conventions for combining and transforming the axioms of a given argument or discourse are all explicitly laid out from the beginning (and will differ from one logical or mathematical system to another). In such a discourse the conclusions are fully entailed by the premises and transformations that are specified. These premises and operations are in effect the system of constitutive and regulative rules which are to be used to make sense of the argument. The point here is that because they are specified, they are 'objective' or 'external' in a way that constructs usually are not.[8] Everyone making use of this mode of discourse will be using the same explicitly stated rules or constructs (though obviously they may differ in their mastery of them), and thus should reach the same conclusions. Because they are fully specified by the terms of the argument, however, these rules need have very little to do with any other system of constructs which a person might ordinarily use[9]; they can remain unrelated to the rules governing the common-sense world because they are quite literally built up outside of the person using them. This is particularly clear in an area such as engineering, which relies upon a highly developed form of mathematical discourse in deriving and applying equations which relate various design factors to one another. Such equations are of utmost importance in the work of the engineer, but they are important only as tools to be more or less consciously applied whenever they are needed; they will never be internalized in the way that the rules of language, for example, must be.

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[8] Cf. Polanyi (1958) on objectivity: "This would imply that, of two forms of knowledge, we should consider as more objective that which relies to a greater measure on theory rather than on more immediate sensory experience. So that, the theory being placed like a screen between our senses and the things of which our senses otherwise would have gained a more immediate impression, we would rely increasingly on theoretical guidance for the interpretation of our experience, and would correspondingly reduce the status of our raw impressions to that of dubious and possibly misleading appearances." Such theory always seems outside, "other than myself" (p. 4). Langer (1967) has similarly discussed the extent to which formalization through logic creates a sense of objectivity that "has few if any parallels" (pp. 147 ff.).

[9] Polanyi (1958) again: "Since the formal affirmations of a theory are unaffected by the state of the person accepting it, theories may be constructed without regard to one's normal approach to experience" (p. 4).

Following Britton (1970), we will call discourse used in this way discourse in the 'transactional' mode, since this kind of objectivity is the condition for transaction between people who do not share a world in common, for the development of theory as well as for the day-to-day business of man.

Poetic Form

When we move out of the expressive in the opposite direction, away from the objectivity of the transactional mode, we do so by increasing our concern with Langer's 'subjective feeling'. Here we are concerned with processes which operate within the individual rather than with those that are developed as external social tools. The constructs involved will be neither specified nor, ordinarily, fully specifiable--they are systems of implications which are built up independently by each reader. Rather than an external, objective, impersonal conclusion, such a discourse leads to a complex, slow, internal formulation of the relationships among the relevant constructs.

Susanne Langer (1953) has emphasized the extent to which a work of art relies upon such tensions among its various elements. She begins with music:

> The tonal structures we call 'music' bear a close logical similarity to the forms of human feeling--forms of growth and attenuation, flowing and stowing, conflict and resolution, speed, arrest, terrific excitement, calm, or subtle activation and dreamy lapses--not joy and sorrow, perhaps, but the poignancy of either and both--the greatness and brevity and eternal passing of everything vitally felt. Such is the pattern, or logical form, of sentience; and the pattern of music is that same form worked out in pure, measured sound and silence. Music is a tonal analogue of emotive life. (p. 27)

Langer generalizes her findings to the other arts, demonstrating how each through its unique resources is able to provide a pattern of 'living form' that is an adequate symbol of "emotions, moods, even sensations in their characteristic passage" (p, 82). Her account nonetheless neglects one crucial factor that she recognizes in her later works: these tensions and patterns emerge not from the elements in the work directly, but from the way those elements are perceived by the audience. The conflicts we feel are in the end not conflicts between the notes of the music, the colours in a painting, or the incidents in a story, but between the constructs which we use to interpret those notes, colours, or incidents. It is with these constructs or patterns of implications that the artist is working, constructs which are personal rather than public, called up in each person individually rather than through objective, public rules and conventions.

Again following Britton (1970), we will call this end of the spectrum the 'poetic mode'.

Transactional writing controls a reader's response by 'objectifying' the constructs which will be brought to bear. The poetic, on the other hand, presents us with an experience in which the relevant constructs can only be implicit. As Kenneth Burke (1966) has pointed out, these constructs (or in his terms, 'personal equations') are logically prior to the discourse itself, though the reader or critic can formulate them only afterwards. The principle is clear enough: an author is writing out of a set of constructs which shape the work, and in the process are recorded in it; and it is from this record, or verbal artifact, that we in turn build up a meaning. The constructs shaping the work will function at many levels, ranging from those which govern the consistency of each individual character in a story to such general principles as Fate or Justice or Destiny (themselves reflected in complex interrelationships among the characters and incidents). Such projected constructs should not be confused with those that govern the author's own actions; they are not necessarily or even usually the same. At the very least, those projected in the work will be less complex, more 'public', than those that the writer uses; the work will have a form and simplicity that raw experience achieves only after it has been construed.[10]

The formal properties on which poetic discourse relies to project its constructs have been explored in considerable detail, especially under the influence of the New Critics; the principles which they have uncovered, however, operate tacitly rather than explicitly. Such rules tell us how a given effect is achieved, but they cannot be used to achieve that effect for the individual reader in the way that the rules underlying a transactional argument can be used to validate that argument. In this sense the response to a poem is always a personal response, relying on the individual's own construal of the situation, his own tacit understanding of the rules by which the poem functions; at the same time, the very extensive use which a poem makes of these rules creates a structured whole with definite interrelationships among its parts. Thus we find Winifred Nowottny arguing in her book on the language of poetry that,

> ...meaning and value in poems are the product of a whole array of elements of language, all having a potential of eloquence which comes to realization when, and only when, one element is set in discernable relation with another; that, therefore, a disagreement about the meaning or value of a poem is a disagreement about relationships and is likely to be interminable just so long as the relationships operating in a poem are by either or both parties to a dispute inaccurately estimated and described. (1962; p. 18)

These interrelationships are the author's means of controlling the reader's response: the more tightly they are woven together, the more clearly an idiosyncratic response will be held in check. For if a reader brings in a bizarre interpretation at some point in his reading, an interpretation based on a way of construing which is not close to that which the author intended, the reader will find that the rest of the structure will not make sense. He will be forced to look for another interpretation, another way of construing what he has read. As in the transactional mode, movement towards the polar form of the poetic simultaneously restricts the latitude of the individual reader in construing the discourse. It is because of this restriction achieved through the shaping of the presented experience that the personal, subjective mode of the poetic can still be said to offer a universal meaning, an intersubjective as well as an intrasubjective area of agreement and consistency.

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[10] Thus Levi-Strauss (1966) sees art as a "reduction in scale" that compensates "for the renunciation of sensible dimensions by the acquisition of intelligible dimensions" (pp. 23-24).

The Continuum

The poetic as we are defining it here is part of the same continuum as the transactional; it is a question of degrees rather than of either-or. In the polar cases a discourse may appeal almost exclusively to objective or subjective modes of construing, but there are many intermediate stages in which the elements are mixed. The simplest way to untangle the various points of the continuum is to recognize that the increasing formalization of the transactional mode is accomplished largely through a process of definition and delimitation.[11] In its most developed form all elements are explicitly defined and hence any one element could be replaced by another defined in the same way without altering the meaning of the discourse at all. (Thus it makes no difference in an algebraic problem whether I choose p, q, or r to stand for my unknown quantity, as long as I use each symbol consistently throughout.) In the poetic mode, on the other hand, each element plays a unique role, and none can be altered without at the same time altering, however subtly, the meaning of the work as a whole. Here the continuum is defined by how much difference a given sort of change would make.

Most discourse represents a point along this continuum rather than a polar case; thus we can ask how much of, rather than which, mode is represented in a given discourse. Both modes are clearly important in their own right: we use the tools of transactional language to extend and objectify our analyses of the problems we face, and we govern our own actions by means of the more subjective constructs which we have internalized. We need to have both worlds well-ordered, and the relationships between them must be well-ordered too. As Michael Polanyi (1958) has written,—

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[11] Polanyi (1958) notes: "...definition is a formalization of meaning which reduces its informal elements and partly replaces them by a formal operation (the reference to the definiens)" (p. 115).

> Once truth is equated with the rightness of mental acceptance, the transition from science to the arts is gradual. Authentic feeling and authentic experience jointly guide all intellectual achievements; so that from observing scientific facts within a rigid theoretical framework we can move by degrees towards indwelling within a harmonious framework of colours, of sounds or imagery, which merely recall objects and echo emotions experienced before. As we pass thus from verification to validation and rely increasingly on internal rather than external evidence, the structure of commitment remains unchanged but its depth becomes greater. (p. 321)

Though we may not agree with all of the implications of Polanyi's statement, we want to echo his emphasis on the joint nature of the enterprise and to claim that it is the mixed forms along our poetic-transactional dimension which exemplify it best.

A writer in the poetic mode uses transactional devices to retain control of aspects of response which are not firmly controlled by the form--to set a scene, describe a character, and sometimes to draw a moral or summarize the 'point' (thus tying the subjective response directly to one or another objective formulation of it). Such techniques orient the reader, keeping him in touch with what the author is doing, but they are only successful when they are consistent with the subjective responses simultaneously being shaped by the form of the discourse. On a very crude level, it will not help much to be transactionally told that a character is eccentric, if what we are shown of his actions can only be construed as pathological; nor will it help to be told a character is Scottish when he is clearly speaking Welsh.

A writer in the transactional mode will use poetic devices for what has traditionally been known as rhetorical effect; he will deliberately appeal to subjective feeling to bolster what in some sense claims to be a purely 'objective' argument. Carlyle's French Revolution is an extreme example of this type of writing, his florid style over-riding the presentation of the history itself. Churchill's war-time speeches are another good example, his subjective appeals really being of more importance than the thread of objective argument supporting them. For the auditor, such rhetorical devices function to integrate the transactional, objective argument with his own subjective modes of acting; the rhetoric works only to the extent that it is a successful integration of the two approaches. "Only those voices from without are effective," wrote Kenneth Burke (1950), "which can speak in the language of a voice within" (p. 39).[12] And it is precisely because Carlyle's two voices are not successfully integrated that he is read more for his rhetoric and style than for his historical theory.

This puts concern with 'abuses' of language through propaganda and rhetorical technique in a somewhat different light. If in fact a piece of propaganda is effective because it meshes with our personal constructs, then the danger in such uses lies ultimately not in the communication, but in the systems of constructs themselves. We may be justified in complaining that someone is appealing to our baser instincts, but the unpalatable fact is that they are our instincts and not ones that have been created for us. Education in such circumstances should not be focussed upon 'proper uses of language', but upon the developing personality and values of the students to whom that language will be addressed.

Some Illustrations

At this point we should make clear that a discourse differs from raw experience in that there are always three, rather than one, systems of constructs that are relevant to it. The first system is that of the author or speaker; the second, that implicit in the discourse itself, whether through transactional or poetic techniques; the third, that of the reader who will be called upon to respond to the discourse, to act as audience and to judge its 'effect'. The relationships among the various systems define the classical problems of aesthetics and communications: that of the relationship of the author to his work, the author to the reader, and the reader to the work. We will be concerned at various points in our discussion, both in this chapter and in later ones, with different aspects of these problems; we should not be surprised to find that conclusions about particular works will vary greatly depending upon which of these perspectives is adopted.

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[12] Hotopf (1965) has made the point slightly differently: "one may also raise the question of the circumstances under which one applies the classification 'expository'. A new idea is often refused understanding. To expound it, exaggeration, metaphor, and paradox may be needed. If our views are not surface features--as though a writer has only to put a transfer on our brains--, if they have roots down into us, in order to change them or get new ones perceived, a reader may need to be dazzled, bludgeoned, and enticed to see what is before his nose." (p. 247)

With this caveat, we will return to our contrast between poetic and transactional, and attempt to illustrate the continuum with some specific examples. For the time being, and largely because it is the way in which the examples are most likely to have roughly the same import for readers of this discussion, we will be concerned with the constructs and modes of construing implicit in the works themselves, taking as their context "the relevant conventions, beliefs, and presuppositions" at the time and place of their origin. Our examples, then, will be largely historical and in general will say little about the reaction of the individual reader today. Still, we are claiming that the dimensions illustrated historically are also the dimensions of importance in the interaction between the individual reader and the individual work.

The purest instances of the poetic mode are, as the name suggests, largely works of poetry: it is in this genre that the system of constructs with which the author is working is most fully projected in the form, and hence in this genre that there is the fullest control of the subjective construal of experience. Here also are some longer works which continue to be tightly written, but in which the primary source of poetic control shifts from single words to larger units--scenes, characters, incidents--

themselves built up out of word-by-word detail.[13] These include such works as King Lear, Paradise Lost, and Ulysses. One would hesitate to call these works less poetic; they simply achieve their poetic control with a different set of techniques and conventions. Since we have used a principle of substitutability as one approach to the nature of the continuum, it is worth noting that with these longer works it usually changes the meaning less to leave out a part than to substitute one incident for another. This is precisely because of the degree of structuring in the work as a whole: the tighter the form, the more the redundancy that will be present in it. To delete a section may leave the discourse slightly less rich, but its parts will still be consistent. To replace a section will upset the whole system of tensions and contrasts that gives it its structure in the first place.

The next group of works along this continuum are ones whose purpose and scope is more limited; the author relinquishes his control over some aspects of response, while carefully controlling those which are essential to his 'point'. Such works tend to be one-dimensional, but this one dimension can nonetheless be well and clearly drawn; we do not necessarily reject the book out of hand simply because it is not 'complex' enough. This mode includes much popular fiction, the James Bond novels, science fiction and mystery stories, and most (for want of a better term) 'ideological' literature. The constructs which are projected in the form of such works tend to be quite restricted--they are those necessary, for example, to the suspense in a mystery, the conflict in an adventure, the triumph of love in a romance. This limitation of the range of control is particularly clear in what we referred to above as 'ideological' or didactic literature--works such as

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[13] Kenneth Burke (1945) has given particular attention to the ways in which such larger units are handled, noting for example that the "name of any well-developed character in fiction is the term for a peculiar complex of motives" (p. 33); these units can then be balanced against one another in much the same way that smaller units are in a lyric poem.

Orwell's Animal Farm, Bunyan's Pilgrim's Progress, and Harper Lee's To Kill a Mockingbird. In each of these the author has a quite evident point to make and takes greatest pains with those aspects of subjective construal that are directly relevant to the point; the rest of the response of the reader is more or less assumed to correspond to conventional modes of construing.

Moving from these works towards the expressive, there is a body of works whose status as 'fiction' is somewhat ambiguous. Biography and autobiography, accounts such as Hersey's Algiers Motel Incident and Capote's In Cold Blood, and journals such as Boswell's can be classed roughly together here. With such works we tacitly grant the author a certain latitude in his selection and presentation of events, a licence to sharpen and clarify the experience presented to make 'a better story'. On the other hand, all rely on conventional patterns of construing for their interpretation; their points are made without precise projection of the relevant personal constructs into the structure of the discourse itself. Those that are needed are either stated transactionally or assumed as part of the shared, common-sense world of the author and his audience.

Near the middle of the poetic-transactional continuum are works which share with the expressive a nearly equal mix of the two modes, a mix of objective argument and subjective construal of experience in nearly equal proportions. When the two modes are used in concert, reinforcing one another, we get the personal essay exemplified by an author like Macaulay. When the elements are played against one another, we get the biting satire of Jonathan Swift's A Modest Proposal, in which a perfectly objective, transactional argument is vitiated by the perfectly subjective, poetic reactions against it which Swift relies upon the reader to provide. Both writers rely upon an assumed view of the world to make their subjective points; neither to any large extent uses the formal qualities of his discourse to shape the reactions he seeks.

Of works clearly in the transactional mode, the discourse which is closest to the expressive is that of, for example, a sports commentator or an on-the-scene news report. Such commentary will be totally bound by the language and social conventions which the speaker and audience share; there will be no time to spell out meanings, since the discourse will be carried forward by the pace of the events being described. A newspaper article is able to be slightly more transactional, free as it is from the push of immediate recording; but it will still be addressed to a particular readership and will rely heavily upon the conventional beliefs of that readership to govern its selection of 'newsworthy' items and the attitude to be assumed towards them. However objective the reporting may claim to be, it will be shaped throughout by a common-sense knowledge of what is interesting and important, a knowledge shaped by the conventions and expectations of a socially constructed world. (It is because there is more than one such world in a pluralistic society that our newspapers span such a wide spectrum of news and opinion.)

Next along the spectrum are writings explicitly embedded in the context of a theory. Here the author will be expected to define his important terms, to objectify and make explicit both the premises from which he is arguing and the conclusions towards which he is moving. Much of his argument will remain 'persuasive' rather than transactional, invoking subjective reactions to bolster his subjective claims. Far from weakening an argument, such appeals usually strengthen it, demonstrating a congruence between the subjective and objective realities with which the discourse is dealing. This congruence or 'sense of fitness' may carry the reader over weak points as well as destroy allegiance to other explanations of the same phenomena. This is a large class of the transactional, including most historical, philosophical, and scientific theory-building--Darwin's Origin of the Species as well as Langer's Mind and Durant's Story of Civilization. Such works are validated against a background of rules of evidence and accepted procedures within their own specialized disciplines, rather than from the logic and conventions of the common-sense world.[14] These special conventions of professional life are closely related to what Kuhn (1962) has called the 'paradigm' underlying scientific work at any given point in history,[15] and constitute a formalization of a higher order than would be apparent from examining a single discourse in isolation from the professional context from which it derives.

Beyond this point transactional discourse begins to resort to artificial symbol systems to provide a more explicit formalization than can be achieved in a natural language. Largely through the use of mathematics or symbolic logic, such discourse rules out private interpretations by specifying the constitutive and regulative rules which are to apply. Both Piaget and Chomsky have used this approach in presenting the theories from which we chose the examples in the previous chapter; it is also at the heart of works such as Whitehead and Russell's Principia Mathematica or Einstein's 1905 presentation of relativity theory. Beyond this mixed mode of formalization embedded within the context of explanatory language we have only purely formal systems.

4. Elaborative Choice

The next dimension of our model is closely akin to what Kelly (1955) has called the 'elaborative choice'. In Kelly's view, a person dealing with a new event decides whether to handle it within the context of his present construct system, or whether it requires a fundamental change in the system of constructs itself. The first choice leads to a tight, closed, but well-defined personal universe, the second to greater uncertainty but also the possibility of a greater range of control. The choice itself is between a static and a dynamic world, but for most of us it is a temporary choice subsumed by a larger pattern of alternately clarifying and changing the basis of construing (cf. Kelly (1955), pp. 528 ff.).

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[14] James Moffett (1968) has argued that the continuum can be seen as a succession of different 'logics', each with its own techniques. This is much to our point, though we want to emphasize that each logic is implicitly a mode of construing the discourse and must be taken to include all of the special conventions and rules of procedure of the particular professional discipline. Cf. Moffett (1968), p. 35.

[15] Kuhn's 'paradigm' is essentially equivalent to those aspects of a personal construct system which members of a professional community share, in particular those aspects which determine and validate the problems to be addressed and the solutions to be accepted in the course of normal professional activity.

An author makes a similar elaborative choice about the system of constructs projected in his discourse; he can stay within the system with which he begins, confirming it in broad outline even as he elaborates it in detail, or he can seek a broader range through a conversion to a new system, a more or less fundamental change in the way the world is to be construed. His primary tool in controlling the elaborative choice is the process that Kelly called validation: the constructs from which the discourse starts can be seen as sufficient (and thus validated) or insufficient (and invalidated) for handling the experience of the work. This validation and invalidation, as well as the elaborative choice itself, is a property of the discourse; it is independent of the author, who may learn from it just as other readers do. (On the other hand he may already have learned the lesson the discourse is teaching and structure it as he does because he thinks it the most effective way of teaching the lesson to others.)

Conversion

At one end of the continuum, an author chooses to extend the range of the construct system, forcing it towards fundamental change, towards conversion into a new form. King Lear, Oedipus Rex, Origin of the Species, and Newton's Principia are alike in this respect; each poses a basic challenge to the system of beliefs which forms the background against which it is written. Spectator role writings throw down this challenge by creating a conflict within the subjective construal of the experience they offer; participant role writings achieve the same kind of tension through objective argument and explicit demonstration of contradiction or inadequacy.

An important defining aspect of this polar form of the elaborative choice is that the discourse is addressed to problems which are central to the construct system; it challenges the nature of the questions to be asked as much as the answers to be given. In the subjective realm such a discourse is addressed to what Kelly called core constructs, those at the heart of the individual's personality and system of values. To the extent that the discourse is successful, it represents a conversion from one system of values to another. In the objective realm such a discourse relates to Kuhn's underlying paradigm governing inquiry; to the extent that it achieves its aim, it will result in scientific revolution and an attendent paradigm change.

For such works to achieve their goals, more is needed than simply a successful formulation of an objective argument or successful projection of a subjective system. If the audience is to make a similar elaborative choice, if they are to agree that the implications of the discourse are of any relevance to their own lives, the terms of the argument must be congruent with those out of which they themselves have been operating. Kelly's (1955) discussions of psychotherapy provide us with a good model of the process; in the following passages we can almost substitute 'reader' for 'client', 'author' for 'clinician', and 'work' for 'fixed role'.

> As soon as the client begins to take the fixed role 'seriously' he is likely to have difficulties and his progress is likely to slow down. In the successful case, it is when the client begins to say in some way, "I feel this is the way I really am," rather than, "I feel this is the way I ought to become," that the clinician notes other evidences of real progress. Sometines this kind of "emotional insight" is voiced as, "I feel as if this had been the real me all the time but that I had never let myself realize it before. (p. 379)

Or again:

> The effective clinician is not the client's twin brother who acts like him, talks like him, and thinks like him. He is the client's teacher who can anticipate his behavior, not merely imitate it, and therefore can act as the client would act, not merely as the client has acted. The clinician then can also turn around and act in contrast to the way the client would act. Finally, the clinician can reconcile and differentiate the two courses of action by subsuming, under some more permeable constructs, the constructs which governed them. (p. 764)

In a similar way the author of a discourse must make his audience respond, "That's me" and "That's the way things are." There are many ways in which such a response can be short-circuited, for in the end response to a discourse depends upon what the reader takes from the work as much as upon what the writer puts into it. The reader construes what he reads, judges it, determines its relevance; he can put it down half-read or end up saying only, "So that's the way they are."

Change of the sort these works are trying to provoke are dealt with by Kuhn as scientific revolutions, fundamental shifts in the paradigm governing the course of normal scientific inquiry--in our terms, a shift in the constructs underlying the discipline. Kuhn too emphasizes that such shifts depend upon the intuitive reaction of the scientific community, a reaction that is conditioned by the long experience and tacit knowledge of those who have been working in the field. Unless the discourse can generate a sense of 'rightness and proportion', a feeling of correspondence between its claims and the tacit knowledge of these workers, the arguments will be set aside as anomalies which the present theory does not handle well but which are tolerated or ignored because of what the theory is able to do. (Much as the babies in the previous chapter 'tolerate' the loss of information that results from closing their eyes in reaching for a ball dangled in front of them.) Polanyi (1969) has argued much the same point, using the changing fortunes of one of his own theories as an illustration of the value of this intuitive professional judgment in protecting a field from irrelevant distractions and misguided expenditures of energy. In this wider context, a discourse can be said to be validated only by the response it provokes, a response that is usually built up over years and into which many bits of dialogue may well have entered.

If we move in a bit from the polar form of the elaborative choice, we come to works which ask for conversion of a more limited part of the paradigm or system of constructs. Though they are seeking thorough revision within their particular area of concern, the area itself is circumscribed in a way that will allow overall stability. In the spectator role we find such works as Animal Farm, Algiers Motel Incident, and To Kill a Mockingbird, in each of which a particular and carefully circumscribed area of belief is challenged directly. (Orwell for example takes on an over-idealized view of Marxism; Hersey attacks the American system of justice; Lee challenges racial attitudes in the American South.) A satire would usually fall into this group too, since it is usually focussed on a very specific question or issue. In the transactional mode, we find here the whole apparatus of theory building and debate between rival schools--in Kuhn's terms, between proponents of rival paradigms. Usually such works, typified by Skinner's Behavior of Organisms or Kelly's Psychology of Personal Constructs, cannot assume a single opponent, a monolythic underlying paradigm out of which (and against which) they are operating, but instead are one-among-many in a struggle for supporters. This is characteristic of Kuhn's preparadigm period in a science, a period of uncertain general principles. The point is that because the field is not thoroughly and systematically integrated to begin with, the effects of any given reformulation will be limited; even the works which finally synthesize the field and give it a paradigm essentially organize rather than reorganize the field as a whole.

Neutral Ground

The next large body of works are those which maintain the expressive's neutrality with respect to the elaborative choice, seeking to integrate new experience into a common world-view with little attention to the nature of that world. In the participant role, this is the mode of giving information, whether in newspaper reports, mail-order catalogues, or recipe books; in all of these a common background of attitude and convention is assumed rather than defended or challenged. It is also the mode of consultation, of a sharing of viewpoints and attitudes when there is little concern with carrying one's own point--the sort of pooling of experience which the girl's in Britton's (1969) transcripts were engaging in. Such an exchange may lead to quite fundamental change in a person's system of constructs, but when such change occurs it is internally motivated rather than arising out of a direction or pressure built into the discourse itself.

In the spectator role, we find a large body of literature whose point seems to be that others find the world much as we do, sharing the same problems and triumphs, heartbreak and joy. Boswell's journals, travelogues in general, most autobiography and much biography would fall here, all in the end not 'making a point' but celebrating our natural interest in one another--an interest which at the same time helps to maintain our common-sense world by demonstrating that in fact it works. Here too we find much lyric poetry, interpreting and consolidating our sense of the world around specific images or 'lyric moments'; these share with the expressive a concern with the world-as-it-is and have sometimes been called 'expressive symbois'.

Articulation

Moving on again, we come to works whose major concern is with articulation of a given set of constructs, working out their detailed implications within the limits that have been set by the general paradigm. As Kuhn has commented, this is an area of "puzzle solving" in that the problems addressed are "assumed to have solutions" (p. 37) because of faith in the paradigm itself. Kenneth Burke (1966) has similarly pointed out that any system of constructs has its own 'implications' entailed in it, implications that man has a corresponding perfectionist tendency to work out. To fully order our world, we must have a conception of the perfect fool and perfect villain, as well as the more mundane characters with whom we are likely to come in contact. It is with formulating the extremes, with working our systems of constructs through to their logical conclusions, that much spectator role writing is concerned. The level at which this is carried out can of course vary greatly; when a work articulates areas of our experience which we have not thought much about, we tend to call it 'broadening'. When it articulates aspects of which we are not particularly proud, we tend to call it 'shallow' or 'cheap'. When it relies on simple effects such as suspense, mystery, or adventure, we tend to call it 'light'. In each case, however, we are engaged in what Harding (1962) has called "the social act of affirming with the author a set of values," at the same time defining and articulating those values for ourselves. Harding's comments emphasize the similarity in this respect of books accorded widely varying degrees of literary merit:

> What is sometimes called wish-fulfillment in novels and plays can ...more plausibly be described as wish-formulation or the definition of desires. The cultural levels at which it works may vary widely; the process is the same. It is the social act of affirming with the author a set of values. They may centre round marble bathrooms, mink coats and big cars, or they may be embodied in the social milieu and personae of novels by Jane Austen or Henry James; cadillacs and their occupants at Las Vegas or carriages and theirs at Pemberley and Poynton. We may lament the values implied in some popular forms of fiction and drama, but we cannot condemn them on the grounds of the psychological processes they employ. (p. 144)

The sense of delight such books give us--when they are successful-- results from the tacit recognition of the consistency within the constructs they are articulating. It is akin to Langer's 'sense of fitness' and to the 'eureka principle' in general.

In the transactional mode, these works correspond to a large area of discourse which Kuhn has labelled 'normal science'. Here one pushes a system to its limits, working out its implications, coordinating and systematizing its parts. It is the mode of scientific surveys and research reports, of sermons and philosophy, of the professional dialogue between members of a given school of thought. As such it represents the bulk of scientific and professional writing, a point Kuhn captures when he calls it 'normal'. The process of articulating a paradigm, of working out its details and clarifying the relationships among its elements, is a long and difficult one, usually involving many people and varying perspectives over an extended period of time. It provides the essential context out of which, eventually, paradigm change as well as paradigm maintenance can be brought about. For as Kuhn notes, only when a paradigm has been fully articulated, pushed to its limits, do its weaknesses as well as its possibilities become apparent. And when the faults become over-riding, the field is ripe for revolution, for a shift of paradigm and a starting-over within the context of a new system of constructs.

Seen from this perspective, the large body of best-selling literature does not deserve the opprobrium that is usually heaped upon it in the name of taste and cultural standards. If we take Richards' (1924) point that best sellers in all the arts exemplify "the most general levels of attitude development" (p. 203), such works help us gain control and precision in a way that is analogous both to 'normal science' and to a child's play as he learns a new skill. The pleasure which they offer is a pleasure of mastery, and just as a child becomes bored when he has fully mastered a skill, dropping some of its elements from his play and taking up new problems; so too we can expect the reader to become bored when he has mastered the principles underlying the stories he is reading. The formula novel is dull only for those who have learned its formula; but once it has been learned, we move on to works that offer a new challenge and hence the possibility of a new mastery.

George Kelly in his discussions of the changes in construct systems that result from psychotherapy also emphasized the extent to which change also requires a stable base from which to venture in a new direction. This recognition was at the heart of his discussion of the elaborative choice, so we should not be surprised to find ourselves making a similar point here. Writings in this area provide stability and security as well as articulation; they are harmful only to the extent that they become the only reading that a person is willing to do. And this they share even with the greatest works; a diet of constant change and conversion, without attaining mastery of each new system, is as unhealthy as refusing to admit change at all.[16]

Finally we reach the second pole of the elaborative choice, where the concern is with providing a more or less definitive, articulated summation of an established system. The 'textbook' is a good example of this sort of writing and has been discussed as such in some detail by Kuhn (1962). The concern is not with changing but with preserving and 'legitimating' a set of beliefs (or principles or theories) so that they can be passed on intact to a new generation (cf. Berger and Luckmann, 1967; p. 111). In science the process is particularly clear, involving very much a process of rewriting the past to serve the purposes of the present, a rewriting which unavoidably distorts the past in the process. In nonscientific transactional writings we get similar consolidations of points of view, summary statements whose major concern is to present a given system in all of its detail rather than to defend the system or to win converts away from its challengers.

In the spectator role, the pole is similarly marked by works whose concern is largely with summation and ordering rather than exploration and extension. Discussing myth, Levi-Strauss (1966) has used the metaphor of the 'bricoleur', or Jack-of-all-trades, who has a fixed set of tools with which to work rather than special tools suited to the particular needs of each task:

> The elements which the 'bricoleur' collects and uses are 'pre-constrained' like the constitutive units of myth, the possible combinations of which are restricted by the fact that they are drawn from the language where they already possess a sense which sets a limit on their freedom of manoeuvre. And the decision as to what to put in each place also depends on the possibility of putting a different element there instead, so that each choice which is made will involve a complete reorganization of the structure. (p. 19)

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[16] Bruner has made similar points in his studies. Cf. Bruner et al (1956) on the value of validation in promoting more venturesome behavior (p. 124), and Bruner (1968) on the retreat to more primitive forms in the face of repeated invalidation (pp. 18, 41).

This reorganization, however, remains 'pre-constrained' by the tools which have been accepted; it is a matter of working out a particular system of relationships rather than of challenging the relational principles or constitutive units themselves.

Ritual, like myth, also comes at this pole of the elaborative choice. Here Levi-Strauss argues that sacred objects "contribute to the maintenance of order in the universe by occupying the places allocated to them. Examined superficially and from the outside, the refinements of ritual can appear pointless. They are explicable by a concern for what one might call 'micro-adjustment'--the concern to assign every single creature, object or feature to a place within a class" (p. 10). His documentation of these points within the realm of primitive cultures is extensive, providing much detailed support for our sense that myth and ritual serve as reference points for a culture. They are able to serve such a function partly because, like Kuhn's textbooks, they too are constantly rewritten as circumstances and values change. Goody and Watt (1963) have commented at length on this phenomenon in pre-literate societies, where deities "and other supernatural agencies which have served their purpose can be quietly dropped from the contemporary pantheon; and as the society changes, myths too are forgotten, attributed to other personages, or transformed in their meaning" (p. 319). In our own culture such summary statements usually stem from a religious context, the Bible being a paramount example. Bunyan's Pilgrim's Progress is another good illustration here; its allegory quite explicitly demonstrates its presumptions about a Godly and Christian life. So too with Milton's Paradise Lost, which though it is a far more complex and personal synthesis than Bunyan's, is quite consciously and precisely laying out the details of the system as Milton sees it. The concern is with the reconciliation of difficulties rather than with conversion to a new paradigm.

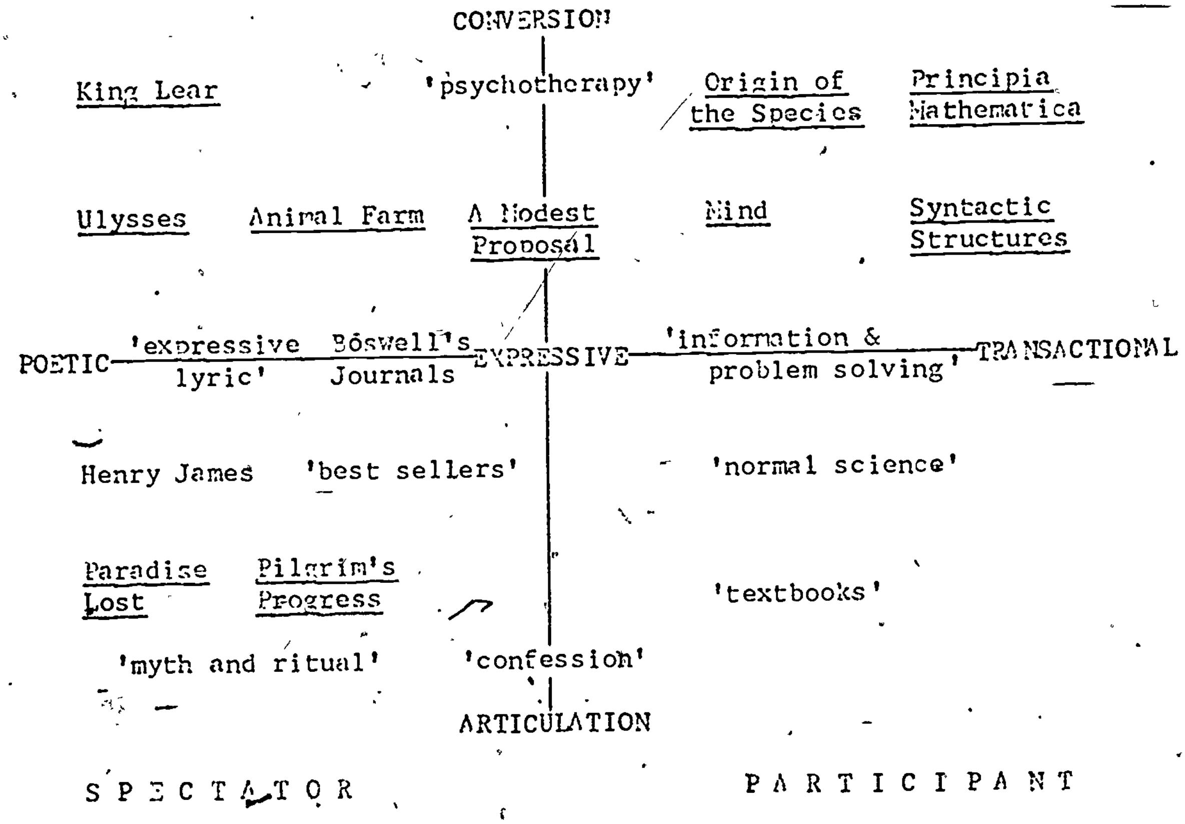
Indwelling

It should be clear by now that in arguing a dimension corresponding to Kelly's notion of elaborative choice, we are not suggesting that the spectator role can be divided into those works which provide us with insight into ourselves and those which do not. We grant--even argue--that such insight has much to do with the value of works at all points along the continuum. The point we are trying to make, however, is that there is a qualitative difference in the kind of insight which is provided, a difference that lies in the way in which the discourse is implicitly to be construed. On the one hand, we have works which are concerned with a struggle between paradigms, with forcing us to recognize irreconcilable conflict or limitation within one view of the world, and thus ultimately to expand our range and begin again from a new set of basic principles. On the other hand, we have discourse concerned with the reconciliation of conflict within an accepted paradigm, with rearranging and articulating its parts, bringing them into alignment with one another, and ultimately confirming the basic system of values in broad outline even as it is reorganized and changed in its detail. Whether we are concerned with moving towards a new paradigm or with gaining mastery of the one which we have tentatively assumed, the arts remain one of our most important instruments. They are our mode of 'indwelling' (Polanyi, 1958), of ordering our mind and experience into a coherent and useful whole, an ordering that can only be done tacitly but which structures the whole of our active life.

5. The Model as a Whole

So far we have described the two underlying dimensions of discourse in isolation from one another. In figure 1 they are brought together in a unified model with its origin in the expressive and with the two dimensions defining directions of differentiation out from it. Examples from among those we have used already have been located in the diagram to illustrate its structure.

Figure 1: Modes of Discourse


CONVERSION
King Lear
'psychotherapy'
Origin of the Species
Principia Mathematica
Ulysses
Animal Farm
A Modest Proposal
Mind
Syntactic Structures
POETIC
'expressive lyric'
Boswell's Journals
EXPRESSIVE
'information & problem solving'
TRANSACTIONAL
Henry James
'best sellers'
'normal science'
Paradise Lost
Pilgrim's Progress
'textbooks'
'myth and ritual'
'confession'
ARTICULATION
SPECTATOR
PARTICIPANT

The Expressive Center

Several points are worth reiterating here. One concerns the central nature of the expressive: as we have defined it all other modes of discourse can be seen as differentiations of this initial, fluid form. Placing it at the center of both of our dimensions, however, in effect gives the expressive a more limited definition than it has had as the center-point of the poetic-transactional spectrum alone. This change seems useful, for it separates two aspects of the expressive which in the past have been intermingled--one having to do with its place as a bridge between the subjective and objective worlds, a bridge having its roots in the reciprocity of the shared encounter; the other relating to its openness to new ideas, its lack of commitment to a particular way of assimilating experience, and its concomitant usefulness as an instrument of problem solving.

What we want to argue is that there are other modes of discourse which share one or the other, but not both, of these characteristics with the expressive, and that these other modes are best handled as differentiations along the dimensions of our model rather than as part of the expressive mode itself. The two poles of the elaborative choice are a good place to start. We can cite psychotherapy as an example of 'conversion' on the boundary between transactional and poetic; it is a very private process in which the individual's personal and public worlds are realigned. At the other end of the spectrum we can recognize religious confession--at least for some groups in our culture--as one of the foremost means of reestablishing and confirming a system of constructs, again in a very private segment of the individual's life. Both of these modes share with the expressive a lack of formal differentiation into poetic or transactional forms. They differ from the expressive, however, in their commitment to a point of view, a way of assimilating the world. Whereas in the expressive we have argued the only pressure is towards fitting the world together, in both of these there is implicit a particular way of viewing that world. If one accepts the conventions of each mode, both the patient in psychotherapy and the suppliant in confession are guided from without, their construal of the world being shaped by the course of the discourse itself. The asymmetry of the relationship is evident in Kelly's discussion (1955):

> The therapist subsumes the client's constructs. He decides what kinds of variation of conceptual elements to introduce into the therapeutic field for the client to make constructive sense out of. He permits the client to validate certain constructs and he sets up the situation in such a manner as to invalidate others. (p. 594)

This is anything but an unstructured situation, however unstructured and self-revealing the language of the patient may be.

On the other hand, the extremes of the poetic-transactional dimension can share with the expressive the openness and lack of assimilative pressure that confession and psychotherapy lack. In the transactional, as we have already noted, we find many developed forms of problem-solving behavior--the dialogue in professional consultation or the application of a computer program to a problem after data have been gathered and parameters defined. In the poetic mode, we find expressive lyrics which serve as reference points or indices to our shared world.

To argue that these areas are best seen as differentiations of the expressive rather than as part of its core is not to lessen the importance of the expressive in our lives. It remains the mode where the various parts of our life come together and are adjusted to one another, where we give our experience the meaning that it is to have for us. Berger and Luckmann (1967) have noted the importance of such processes, dealing with them as 'conversation':

> The most important vehicle of reality-maintenance is conversation. ... Most conversation does not in so many words define the nature of the world. Rather, it takes place against the background of a world that is silently taken for granted. (p. 172)

Yet it is not a static world that is taken for granted, rather a progressive one that is changed by the very activity of keeping it in order:

> One may have doubts about one's religion; these doubts become real in a quite different way as one discusses them. One then 'talks oneself into' these doubts; they are objectified as reality within one's own consciousness. Generally speaking, the conversational apparatus maintains reality by 'talking through' various elements of experience and allocating them a definite place in the real world. (p. 173)

It is this 'talking through' that we want to keep as the heart of the expressive, leaving the differentiated forms--the arguing of a point of view, the creation of expressive symbols, the solving of a problem with the tools of transactional language--as specialized and distinct modes which develop out of the expressive and into which the expressive can easily move.

This has obvious implications about the order in which we would expect the various modes to be handled successfully by an individual, but it is not meant as a developmental model per se. It is not that one begins in the expressive and moves from it to the borders of the model; rather that these other modes are added to the initial expressive mode, which continues to mature alongside of them. Movement from one part of the model to another does not represent a shift in quality or maturity or value, simply a shift in the mode of construing which the discourse itself implies.

Cultural Value

On the other hand, figure 1 does suggest that certain modes of construing have been more highly valued by our culture than have others. The quadrant consisting of 'converting' works in the spectator role subsumes much of what has been termed 'good literature', suggesting that we have placed a value on the progress implicit in reformulation and extension of the degrees of freedom--a conclusion bolstered by the esteem in which the works in the corresponding sector of the transactional mode have also been held. At the same time we have valued the summary statements of the other extreme, the clear synthesis of a total point of view which can be used to initiate succeeding generations into a common culture. The areas which have tended to be neglected--even derided--are those of 'normal science' and its spectator role equivalent. The effect of these works is cumulative rather than dramatic, no one work becoming etched into cultural or professional consciousness. (A fact highlighted by the lack of titles that can be cited in these areas with any hope that they will be understood; we recognize the genres without sharing our examples of them.) Still their importance in the total process of cultural and professional advance should not be forgotten: they provide both the stable reference points and the articulation of the system as a whole that is necessary for progress to take place at all.

The Interaction Between Reader and Work

Works have been placed in figure 1 on the basis of the mode of construing implicit in their structure when judged against the context of their time and place of origin. This was the simplest way to classify works while presenting the model, but the dimensions of construing which we have been exploring continue to be of importance when we shift our focus from that of general cultural importance to that of the individual reader's response. Origin of the Species, for example, was originally a polar form of the elaborative choice, challenging basic assumptions and leading to a conversion to a new paradigm. But for most biologists today it has moved to the opposite pole, becoming a major if somewhat dated reference point laying down the outline of the paradigm from which present-day science operates. King Lear, on the other hand, remains much what it has always been, a poetic work provoking conflict within the paradigms of each succeeding generation, pushing towards a new and broader perspective. And each generation construes the work in this way because the depth and complexity of the original is such that the problems it poses are ultimately larger than the context of kingship and power out of which it comes; they are questions about the nature of man which each generation must face for itself. Other shifts that may take place within the model are purely individual, developmental ones. We have all had the experience of a book which once excited us, opening our eyes to whole new vistas of human experience, and yet which when we returned to it in later years seemed trite and superficial. It is a natural process, brought about by changes in our own systems of constructs. In the terms of the model, that which is initially a force towards conversion becomes, for the converted, a neutral or articulative summary of an accepted point of view.

It is on the nature of this interaction between the reader and the work that we will focus in the following chapters, exploring some of the ways it is controlled, how it develops and changes, the conscious and less-conscious ways in which it affects us. It is an important interaction because in the aggregate, summated across the many individuals who are part of our culture and our society, it represents the progress of culture itself.

CHAPTER III

GENERAL PROCEDURES IN THE COLLECTION AND ANALYSIS OF DATA

1. Introduction

To explore the implications of this view of the spectator-role, a series of studies was undertaken to investigate developmental trends in ideas about and responses to literature. The studies fall into two main groups, data from which will be presented and analysed separately. The first set of studies used a published collection of stories told by children between the ages of two and five (Pitcher and Prelinger, 1963). The original investigators analysed these from a neo-Freudian perspective, using them as a means to explore latent themes or crises of developmental importance. Their investigations, though we will draw upon them at a few points, have for the most part little relevance to our present concerns. Pitcher and Prelinger's report reprints in full the corpus of stories upon which their investigations were based, however, and it is this collection which is most valuable to us here. For the present investigation, analyses concentrate upon the stories as a source of information about the expectations which a child has about what a story is, how it is organized, and how it can be 'used' or varied in response to different problems.

The second series of investigations was designed to explore age-changes in ideas about and responses to literature among students from six to seventeen years of age. At each age level, the relatively standard use of structured or semi-structured interviews and open-ended questionnaires was combined with a parallel exploration using an adaptation of Kelly's (1955) repertory grid technique. The interviews and questionnaires can also be seen as extensions of Kelly's clinical procedures, however; they are similar to what he has described as the 'self-characterization' of the person whose responses are being studied.

This chapter will be concerned with the technical details of the samples drawn for these various investigations, the rationale behind them, and general problems in gathering and analysing the data. Details of the construction and analysis of specific instruments are reported in appendices II and III; copies of each are included in appendix IV. Discussions of results are introduced as they become relevant in later chapters of this report.

2. The Analysis of Children's Stories

Subjects

Pitcher and Prelinger (1963) collected 360 stories from two, three, four, and five year old children in New Haven, Connecticut, and its surrounding communities, in large part from children attending the Gesell Nursery School. Stories were gathered over a period of several years, between 1955 and 1958. With the younger children, an investigator worked in the classroom as a teacher for 3 months before beginning to collect data. This was not true for the older children, and the five-year-old sample in particular is discontinuous; this included children from regular public school kindergartens where the population represented might be expected to be rather different.

Stories were gathered in response to the simple request, "Tell me a story," but according to Ames (1966) children at different ages vary in their willingness to respond to this task.[1] She reports that only about 50 percent of the two-year-olds will comply, though by three it is easy to elicit stories. Four-year-olds in her sample have become self-conscious about what a story is and again need some coaxing. By five, the major complication is a propensity to retell popular children's tales ("Hansel and Gretel" was the favourite in Pitcher and Prelinger's sample) rather than to make up one of their own. These retellings are excluded from Pitcher and Prelinger's collection; when the children had finished them, they were asked, "Now I'd like a story that is your very own, one that nobody else told you, that you made up all by yourself." Pitcher and Prelinger give no data on the proportion of children who did not tell stories at different ages, and none on the interaction between retold and made-up stories in those cases where the children did both.

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[1] Ames worked from the same research institute as Pitcher and Prelinger and drew from a nearly identical population in the years following the collection of data which they report. Though more briefly reported, Ames' data provide useful amplification of the earlier work.

The socioeconomic status of the children was uniformly high; almost all were from professional families, a usual characteristic of private American preschools. In Ames' (1966) sample from the same population, they fall into classes I and II on the Minnesota Parental Occupation Scale. Various IQ and Developmental Evaluations were available on all of the children: 60 percent were of superior capacity, 33 percent of high average, and only 7 percent average, a bias reflecting the homogeneous and privileged socioeconomic status of the parents. The children must therefore be assumed to be more articulate and their stories more fully developed than would be the case in a random sample of these ages.

Though the population from which the sample is drawn is clear enough, the sample itself is rather confused. Though the stories are evenly divided between boys and girls at each age, there are two stories each from the two, three, and four year olds, and there is a high proportion of overlap between the age groups; many of the children contribute stories during more than one year. A subsample of 15 boys and 15 girls at each age has therefore been drawn for the present study, eliminating all overlap between year-groups and using only the first of the two stories told by the child at a particular age. Selection was at random within these constraints. This makes statistical tests of differences between the ages and sexes possible, and in fact results in dropping only 17 subjects from the analysis completely; the larger drop in the total number (from 360 to 120 stories) is a result of the high degree of overlap between the ages and of the deletion of the second story for each of the younger subjects. The full set of 360 stories was scored, however, and except where otherwise stated can be assumed to show the same trends as the smaller but statistically more useful subsample.

In the discussion and analysis of data, subjects are cross-classified by sex and age. Age to the nearest month, as reported by Pitcher and Prelinger (1963) for each child, was used to calculate the average ages in table 1. Both the two and five year old samples are skewed, consisting largely of children between 2;6 and 2;11 in the first case, and slightly less overwhelmingly of children between 5;0 and 5;6 in the second case.

Table 1: Age in Months of Children Telling Stories

		Age Group			
		Two	Three	Four	Five
Boys	mean	31.9	41.9	53.1	65.3
	standard deviation	1.3	2.4	3.2	4.2
Girls	mean	31.6	41.1	53.3	63.9
	standard deviation	2.2	2.9	3.1	3.3

Based on 15 boys and 15 girls in each age group.

Scoring Procedures

The 360 stories reprinted by Pitcher and Prelinger (their full sample) were randomly numbered using Snedecor and Cochran's (1967) tables and then duplicated with all other identifying information (age, name, sex) removed. These duplicated stories were ordered on the basis of their assigned random numbers and scored in this order. The scores (set out in detail in appendix II) were calculated by the investigator, each on a separate pass through the full set of stories. Scoring was spread over a four-month period and related measures scored at intervals from one another, in order to keep them as independent as possible. After scoring was completed, the more subjective scores were recalculated by an independent examiner on a random subsample of 25 stories. In all cases save one (described in appendix II), these scorings were done directly from the category descriptions without further training by the main investigator; this is a stringent test of scorer consistency but a realistic one in terms of cross-study replication of results. These results are discussed in appendix II in the presentation of the scoring categories; inter-rater reliability was in general high.

When all scores had been calculated, the sample was reassembled in its original form and coded to identify each subject. At this point the subsamples of 15 boys and 15 girls were randomly drawn for each age group. Some of the omitted stories had been told at earlier and some at later ages than those used in the analyses. Since story-telling had presumably been an intervening activity for all of the children, this does not introduce any evident bias.

3. Data from Interviews and Questionnaires

Procedures

Piaget's discussions of developmental stages in intellectual growth were used to select target populations likely to show quite different patterns of literary response. Six, nine, thirteen, and eighteen year old groups were chosen as appropriate school-age populations likely to be biased toward Piaget's preoperational, concrete operational, and early and later formal operational stages. The intent was to maximize the ratio of between- to within-sample variation rather than to claim that specific children would have the resources of one or another of these modes of thought available.

To strike some balance between the quality of the data and the amount of time needed to gather it, younger subjects were individually interviewed but older ones were approached through various written measures. Age nine was used as the change-over point, with samples at that age completing both the written and the oral measures.

A single school drawing area was initially chosen for the study, centering on a large comprehensive school in North London and a nearby set of lower and upper primary schools. A student beginning in the lower school ordinarily moves from there to the upper school, and finally to the comprehensive school; at that last stage he is joined by students from a number of other similar primary schools. The community as a whole includes a stable working class population living primarily in postwar public housing. A small proportion of the population are first-generation immigrants, with some bilingualism; students for whom English was not the mother-tongue were dropped from all samples gathered for this study. Preliminary studies with draft versions of the written measures were carried out in the comprehensive school during the spring of 1972; 1 class group each at eleven, fourteen, and fifteen was tested, with each student completing two instruments. All measures were revised on the basis of the results. Preliminary work on the interview schedules for the younger children was carried out in a school in Southeast London; some of the more interesting fragments of that work have been reported separately (Applebee, 1973).

Testing for the main studies was carried out in a 5-week period in the autumn of 1972, from mid-September to mid-October; this meant that the eighteen year old pre-university samples were in fact in the seventeen year old age band. Work in the various schools and with the various age-groups began and continued simultaneously. Though schedules were adjusted to the convenience of the schools rather than rigidly counterbalanced, time-of-day and day-of-week were consciously rotated among age and sex groups.

Interviews with Six and Nine Year Olds

These samples were chosen from a lower and upper primary school sharing the same building but with separate administration and staffing. In both schools, children were used from all classes at the selected ages, involving 3 teachers at each age level. Class lists were provided by the head of the lower school and by the teachers at the upper school.

Only students in the upper three-quarters of the ability-band at each age were interviewed, to reduce the chance of totally frustrating any of the nine year olds with the written measures.

Subjects were interviewed at random from the class lists, with testing terminated after all cells in the design were full; each interview was approximately half an hour in length, though this varied considerably from child to child. Before testing began, students were assigned at random to one of the two interview schedules; each of these included an orally administered repertory grid as well as a series of more open-ended questions. (These measures are discussed in appendix III and are included in appendix IV.) Ninety-four children were interviewed in all. Six were deleted through examiner error or extreme shyness and discomfort in the interview situation. (In these cases, though the interview continued the formal schedule was abandoned.) The final sample of 88 subjects was evenly divided between ages six and nine, between the two interview schedules, and between boys and girls. All of the children had been in school for at least 1 year at the time the interviews took place.

Table 2 describes the samples in terms of age, vocabulary scores, and reading ability. The six year olds average age is just under six at

Table 2: Age, Reading Ability, and Vocabulary Scores for the Children Interviewed

	Age 6 (n=44)	Age 9 (n=44)	Boys (n=44)	Girls (n=44)	Interview One (n=44)	Interview Two (n=44)	Standard deviation[1]
Age in months	71.3	116.0	93.8	93.4	93.1	94.1	2.90
Vocabulary score[2]	104.1	107.1	102.6	108.7	103.6	107.6	12.82
Reading Ratio[3]	-	95.7	93.8	97.6	95.0	96.5	15.82

Analysis of variance for age and reading show no significant differences between the sexes, between the interviews, or for sex by interview interactions. Vocabulary shows no significant differences for age, interview, or interactions, but F for sex = 4.97, df=1,80, $p < .03$.

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[1] Pooled within cells.

[2] Standardized in the normative sample to have mean = 100, s.d. = 15, separately for each age and sex group (Dunsden and Roberts, 1955).

[3] Reading age in months divided by chronological age in months, all times 100. N_i = 22 except for the Age 9 sample, for which n_i = 44.

5 years 11.3 months; the nine year olds average age is 9 years 8.0 months. Vocabulary as measured by the Mill Hill Vocabulary Scale (Raven, 1965) (administered as part of the interview schedule) is slightly above average for both age groups, though more so for the girls than for the boys in these samples. Reading scores at nine, based on the Holborn Reading Scale (Watts, 1944) administered by each teacher at the beginning of the year, are slightly below average; differences between reading and vocabulary are more likely due to differing normative samples than to a within-group discrepancy in achievement in the two areas. In general, the available scores suggest that the samples do not deviate strikingly in any direction from the average, though there may be some constriction in range as a result of the sampling procedure and the homogeneous socioeconomic background of the community.

Written Measures: Main Study

Nine, thirteen, and seventeen year old samples were drawn for two main measures, one an open-ended questionnaire parallel to some aspects of the interviews with younger children, the other a repertory grid parallel to that given to subjects receiving the first of the two interview schedules. The nine year old sample was simply an extension of that for the interviews, but with more subjects. Students receiving the first interview schedule later completed the open-ended questionnaire; those receiving the second schedule later completed the repertory grid. In both cases, about two weeks elapsed between the interview and the written measures. The latter were administered in groups of 5 students, a manageable size which allowed students to ask for help with vocabulary, spelling, and general interpretation of instructions. Sixty-two children were tested with either the grid or the questionnaire; 1 completing the grid was frustrated by the final part of the task and quit before completing it; 1 answering the questionnaire copied his answers directly from a compatriot and was dropped. This left a final sample of 60 nine year olds, evenly divided between the two test conditions and, within conditions, by sex. Both incomplete tests came from students who had successfully completed the interviews, leaving a 21-subject overlap between interview one and the open-ended questionnaire, and between interview two and the written grid. The expansion of these samples by approximately one-third (from 22 to 30) created no significant differences in the average ages, vocabulary scores, or reading ratios already reported in table 2; final means for the 60 subjects were 116.4 months for age, 106.3 for vocabulary, and 92.7 for reading.

The thirteen year old sample was drawn during the same time period from the neighbouring secondary school. Sampling was by class, with 5 classes out of the 9 having thirteen year olds being used either in the main study or in the supplementary study (which used different instruments). Standardized test results were used to select classes biased toward the better students in the school. This upward bias paralleled that in the nine year old sample and was introduced here in order to provide samples comparable with the pre-university sample which was also to be drawn; by ages sixteen and seventeen, students have passed the school-leaving age and the bottom of each year-group drops out. Selection of classes and scheduling was done by the acting chairman of the English department, with the investigator determining which classes then received the main study and which the supplementary study instruments. The written measures were administered in class groups during regularly scheduled double-period English sessions (approximately 90 minutes); in one case single-period sessions on successive days were used. All students received a brief 'reading survey' in advance of the session, asking for titles of 8 different stories which they had read and remembered[2], one each for 8 different categories of stories (e.g., favourite, hard, moving). The session itself began with a brief description of the study, stressing that it was not a test but an attempt to find out students' opinions about books they had read; then the two main measures were distributed in alternating order around the class so that half received the grid and half the questionnaire. If a student finished before the period was over, he was given the other measure too; thus all were busy throughout the session. During the last 10 minutes everyone was asked to complete a short 'background' questionnaire providing information on age, sex, socioeconomic status, general interest in reading, and preference among a selection of genres and media.

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[2] At all phases of the study, it was stressed that references to 'stories' meant any stories which they had read, including both novels and short stories.

In all, 45 subjects completed the grid as their first measure and 42 completed the questionnaire. Ten subjects on the grids and 2 on the interviews left some portion incomplete and were dropped from further analyses. From the remaining subjects, random subsamples of 15 boys and 15 girls were drawn for each of the measures.

The seventeen year old population was not successfully sampled. After discussions with the staff members involved, these students were asked to gather during a free period rather than during a regular class session. This was done partly because it was thought that enthusiasm and interest would be higher under these conditions, and partly because the class groups themselves were small and the study would have involved disrupting many different class sessions. Virtually no cooperation was obtained during the initial meeting with these students nor during later attempts to follow up with students who had not participated. Students who came to the sessions cooperated, but very few came at all--a response which was apparently the product of tensions within the class group rather than provoked by this specific study. In any event, though some data were gathered the sample was highly self-selected and very small--effectively of very little use.

With the loss of this group it was impossible to draw a seventeen year old sample that would be continuous with the three younger groups. Instead of attempting to 'match' schools, a new study was set up to investigate changes from thirteen to seventeen in a totally different school situation. For this study, two suburban London single-sex selective schools were used. Both are long-established, academically-oriented schools with large pre-university classes and some boarding students. Though sharing some facilities, each school has its own history, staff, and financing. New thirteen and seventeen year old samples were drawn at the girls school during the first week of November, and at the boys school during the last week of November. Procedures were identical with those in the comprehensive school, except that the boys school neglected to distribute the preliminary reading survey forms in advance of the testing session; this was the result of staff absences at the critical points. Time allowances were generous however, so that this affected the second, supplementary questionnaire rather than the measures of major interest.

At the boys school, 30 subjects completed the grid and 25 the questionnaire as their first measure. From these, 10 at each age were randomly drawn for the main analyses of each instrument. At the girls school, 32 subjects completed each instrument as their first measure, again with a random subsample of 10 students for each instrument at each age used for most of the analyses. In both schools, two seventeen year old and one thirteen year old teaching group participated.

Supplementary Study

In addition to the main study focussing on the grid and open-ended questionnaire, a supplementary study using a grid concerned with favourite movies, television serials, plays, stories, pop songs, rhymes, and comic books was also carried out. An oral version of this grid was given to six and nine year old children in the course of the second interview schedule; a written version was administered to new samples of eleven, thirteen, and sixteen year olds at the comprehensive school. Eleven year olds were used for the written measure in order to reduce the demands on the nine year olds, who were already being asked to complete both a written measure and an interview as part of the main series of studies. Arrangements for administering this instrument at the comprehensive school were made simultaneously with those for the instruments in the main study, but testing began a week earlier in order to insure that any difficulties introduced by changes in procedures since the preliminary study would not jeoparadize results from the main instruments. Students in the supplementary study were scheduled to receive the grid, the Mill Hill Vocabulary Scale, and the background questionnaire. This schedule proved unworkable even with the double period, partly because the time demands were too great and partly because testing conditions for the grid and the vocabulary measure were too different to allow them to be joined well in one session, whichever measure were scheduled first. The vocabulary test requires standardized, highly formal testing procedures, while the procedure used with the grid encourages students to talk among themselves during the initial period of selecting titles. Because of the difficulties it caused, the vocabulary measure was dropped from the sessions with the older students at this point; because of the time-lag built into the testing schedule, it was possible to make this change before testing for the main study had begun. Demands on the school staff and attendant problems of scheduling available time made the alternative of a second session for this measure unfeasible.

Two classes at eleven, one at thirteen, and two at sixteen were used in the supplementary study, involving a total of 129 subjects. Of these, 52 left some portion of the grid or accompanying background information sheet incomplete and were dropped from the analysis. Of the remaining 77, 10 boys and 10 girls were selected at random at each of the three ages, providing a total of 60 grids for analysis. The very high rate of incomplete returns in this study was due to the difficulties caused by the testing procedure, and by the fact that the preliminary 'reading survey' did not provide the smooth transition into the task that was obtained in the main study.

Descriptive Measures

A number of descriptive measures were collected from the secondary school students receiving the questionnaire or either written grid. Table 3 summarizes these, including average ages, views of own reading, and, for the comprehensive school students, a rating of verbal reasoning ability based on testing just before entry from primary school. (The latter is here standardized among the age groups as a 3-point scale.) The comprehensive school samples for the main study are above the London average on this rating, while those for the supplementary study are average. On a nationally standardized reading test given to all of the thirteen year olds the previous spring, those classes in the main study had an average reading score of 107.3 (normed mean = 100, s.d. = 15), those in the supplementary study an average of 101.3, while the year-group as a whole had an average of 94.2. There was a slight but evident tendency for students with better initial ratings on verbal reasoning to be more likely to complete the measures, and thus to remain in the final sample.

Social class and socioeconomic status of the students were estimated from data on parents' occupations provided on the background information sheet. No pressure was put on students to complete this item, and there was some resistance to it in the comprehensive school where some of the parents are unemployed; nonetheless the majority responded as requested. Occupations were then classified using a system developed for census data (General Registry Office, 1966), which is itself compatible with the International Labour Office recommendations (1958). The results are summarized in table 4. The parents of the comprehensive school children tend to be skilled workmen, with very few families falling into either

Table 3: Age, Verbal Reasoning Ability, and Estimates of Own Reading for Secondary School Students

		Main Study						Supplementary Study		
		Comprehensive		Selective				Comprehensive		
		Grid (n=30)	Quest. (n=30)	Grid (n=20)	Quest. (n=20)	Grid (n=20)	Quest. (n=20)	Age 11 (n=20)	Age 13 (n=20)	Age 16 (n=20)
Age in months	mean	163.3	163.8	162.4	163.9	209.5	210.0	139.6	164.2	199.7
	s.d.	3.33	3.68	4.26	4.48	6.81	6.35	3.21	2.94	3.95
School Rating of Verbal Reasoning (1 high, 3 low)	mean	1.7	1.6	-	-	-	-	1.9	2.0	1.9
	s.d.	.47	.56					.66	.35	.73
Estimates of Own Reading										
More (1) or less (5) than peers	mean	2.6	2.7	2.6	2.1	2.6	2.4	2.6	3.1	2.7
	s.d.	1.07	.93	1.00	.91	1.19	1.05	1.23	1.23	.93
More for self (1) or for teacher (5)	mean	1.9	2.0	1.3	1.6	2.6	2.4	2.7	1.9	2.3
	s.d.	1.17	.99	.91	.89	1.57	1.31	1.38	1.12	1.34
Books read in past four weeks	mean	3.2	4.2	5.9	7.3	4.8	4.9	3.3	2.7	6.3
	s.d.	1.87	4.85	6.52	6.87	4.47	3.13	5.00	1.92	5.39

Table 4: Social Class and Socioeconomic Groups of Secondary School Students[1]

	Main Study						Supplementary Study			All Students	
	Comprehensive		Selective				Comprehensive			Comp. School (n=120)	Select. School (n=80)
	Grid (n=30)	Quest. (n=30)	Grid (n=20)	Quest. (n=20)	Grid (n=20)	Quest. (n=20)	Age 11 (n=20)	Age 13 (n=20)	Age 16 (n=20)		
Social Class											
I. Professional	0	2	11	11	8	4	0	0	0	2	34
II. Intermediate	6	6	4	6	7	8	2	3	0	17	25
III. Skilled	10	11	1	0	4	1	7	7	8	43	6
IV. Partly skilled	7	3	0	0	0	0	2	4	3	19	0
V. Unskilled	0	0	0	0	0	0	1	0	0	1	0
Other[2]	7	8	4	3	1	7	8	6	9	38	15
Socioeconomic Groups											
1 & 2. Employers and managers	4	1	1	4	2	3	0	1	1	7	10
3 & 4. Professional	0	2	11	11	9	4	0	0	0	2	35
5. Intermediate non-manual	4	4	2	1	2	5	2	2	0	12	10
6. Junior non-manual	4	4	0	0	4	1	0	1	5	14	5
7. Personal services	0	1	0	0	0	0	1	0	1	3	0
8. Foreman-manual	0	0	0	0	0	0	0	0	2	2	0
9. Skilled manual	7	7	1	0	0	0	7	6	0	27	1
10. Semi-skilled manual	4	2	0	0	0	0	1	4	2	13	0
11. Unskilled manual	0	0	0	0	0	0	1	0	0	1	0
12. Own account workers	0	1	0	0	0	0	0	0	0	1	0
13-15. Farm and agricultural	0	0	1	1	2	0	0	0	0	0	4
16. Armed forces	1	0	1	1	0	1	0	0	1	2	3
Other[3]	6	8	3	2	1	6	8	6	8	36	12

[1] Procedures and category definitions as specified in General Registry Office (1966).

[2,3] 'Other' includes unemployed, unclassifiably vague job descriptions, and students who did not respond. For the social class groupings only, it also includes members of the armed forces.

the 'professional' or the 'unskilled' social class groups; in terms of socioeconomic status, they represent the two somewhat separate groupings of junior and intermediate non-manual workers (e.g., clerks, typists, salesmen) and skilled or semi-skilled manual workers (e.g., carpenters, bricklayers, taxi-drivers). Though occupational data are not available for the parents of the six and nine year olds, the area is homogeneous and stable enough to expect little difference. Parents of the selective school children, on the other hand, are primarily professionals (e.g., doctors, lawyers, teachers) or businessmen.

Cooperation

With the exception of the seventeen year olds at the comprehensive school, students in all of the classes tested for both the main and supplementary studies seemed cooperative and, though not volunteers, quite willing to participate. There were few comments indicating any resistance and few attempts to dismiss the questionnaires as a joke, either openly during the class sessions or covertly in the answers recorded. The one exception was a joke which surfaced in virtually all of the thirteen year old and some of the other classes, with Twenty Thousand Leagues Under the Sea suggested as a 'deep' story, and Around the World in Eighty Days as a 'moving' one. This seemed more to relax the classes and establish a comfortable atmosphere than to subvert the intentions of the study; neither title appeared unduly in the responses, and then not in the joke-categories. The instruments themselves were constructed so that series of related questions would provide a check on whether answers were at least systematic. All papers were examined for consistency as well as for lack of cooperation before coding began, but none had to be dropped on these grounds. (Some of the papers dropped for incompleteness, however, were probably the product of lack of interest.)

A more subtle form of distortion is nonetheless likely to be present to some extent in all of the data. This is the attempt to conform to teachers' expectations. Choices of favourites and judgments of 'good' or 'poor' occur at a number of different points in the instruments and would appear particularly prone to some such distortion. This was minimized in two ways. First, the presentation of the study stressed that there were no right or wrong answers, but that we were trying to find out what students 'really' think about the books they have read. It was stressed that people hardly ever agree in their detailed comments about specific books, an assertion that was strengthened considerably by the heated arguments that had arisen in some classes in the process of filling out the preliminary 'reading survey' form. The second way in which distortion was controlled was by designing the various instruments to legitimate as wide a range of responses as possible. Questions asked not just why one might like such and such, but also why one might not like it; story-titles were elicited for such diverse categories as favourite, not liked, moving, hard, easy, and deep; students were asked for their personal favourites as well as those they thought should win a prize as 'the best book'; and so on. Such procedures cannot eliminate the attempt to respond the way one thinks one 'ought' to, but they do help to minimize it.

4. Treatment of Data

General:

Data gathered in the course of these investigations were coded and punched for computer analysis, and checked for errors. Frequencies were obtained for categorical variables, and adjacent or related categories combined to raise expected frequencies to the levels suggested by Cochran for appropriate use of chi-square as a test statistic; in some cases they were simply dichotomized at the median. Cochran's criteria are summarized in Snedecor and Cochran (1967) and more conservatively in Siegel (1956).

Categorical data were analysed using the SPSS system (Nie et al, 1970) as implemented at the University of London Computer Centre on its CDC 6600 computer. Parametric analyses were carried out using MANOVA

(Bock, 1963; Bock and Haggard, 1968) and the BMD series (Dixon, 1968, 1970), again as implemented at the University of London Computer Centre. All three of these sets of programs provide widely used and well-documented routines for various standard statistical procedures, though the SPSS system produces a disconcerting number of inappropriately computed tests of significance in its contingency table subroutines.

These systems were supplemented by some hand calculations for simple effects. Fisher's Exact Test was computed using Siegel's (1956) tables for those cases where frequencies in all cells were greater than 1; exact levels were used in other cases. Interactions in two-by-two tables in which the entries are proportions of a third variable were also tested by hand, using an approximate test based on the normal distribution. This test is described in detail in appendix II.

Throughout the analyses, .05 was taken as the level for rejecting the null hypothesis, probabilities between .10 and .05 as indicating a trend; others are reported as no significant difference (nsd). One-tailed tests are used where hypotheses were made in advance and where such predictions can be incorporated in the test statistic. This latter condition is not met, for example, in the chi-square tests with degrees of freedom greater than 1, and those tests are therefore all two-tailed. For two-by-two tables, calculations for chi-square included a correction for continuity; cf. Siegel (1956) or Snedecor and Cochran (1967).

Children's Stories

For the children's stories, summed scores were computed within series of highly related variables to provide some control for the multiple comparisons involved. These were dichotomized or used in analyses of variance as their distributions warranted.

In the subsample of 120 used for the main analyses, the two, three, and four year olds each had a second story available. These had been told an average of 1.6 months after the first and were used to explore the extent to which children make use of a variety of options in telling their stories. For these analyses, subjects were partitioned into those at or above age 3;6, and those below. Initial and repeat scores for each child were then compared; these analyses are discussed in chapter VI. Changes from story 1 to story 2 were also tested against the hypothesis that the second story should show some developmental advance, in the direction of the age-changes predicted for the initial scores. These analyses are summarized in supplementary table 1 (appendix I): almost all are in the predicted direction but few of the changes are statistically significant. Given the short time-interval between the two stories, this is not particularly surprising.

Age and sex differences were tested for all measures; for variables which could be treated as representing underlying interval scales these included tests of interactions. For most of the categorical data only main effects were tested, using chi-squares on the appropriate bivariate distributions.

Interviews and Questionnaires

The design of the main study, with the change from oral to written measures at age nine and from the comprehensive to the selective school setting at age thirteen, makes overall tests of significance of questionable value and validity. Instead, both univariate and multivariate analyses have been limited to the contrasts of interest between adjacent ages, between school settings, and between oral and written measures. Sex contrasts have been tested within these constraints. In reporting results on the written measures, the nine and thirteen year old samples from the North London primary school and its associated comprehensive school are discussed as a single 'comprehensive school' population; similarly, the two selective schools have been treated as one population in most of the analyses. Sex and interaction effects have been tested for the selective school samples, however, and in interpreting differences that appear it is necessary to remember that they confound a between-schools effect with any sex differences.

The grid analysis service run by Patrick Slater for the Medical Research Council carried out many of the analyses on the grids, providing in some cases essentially a scoring service for the individual grids and in other cases computations for between-group comparisons. The steps in these analyses are untangled in appendix III; here I would simply like to acknowledge once again my gratitude to Dr. Slater and to S. Jane Tutton, who carried the burden of most of the work for these grids.

5. Reporting of Results

Several different empirical studies were undertaken in connection with the present investigation. The samples and general procedures have been described in this chapter; details of specific instruments and scoring categories are included in appendices II and III. The chapters which follow are organized around the various aspects of the spectator role on which these studies can throw further light. Though most of the chapters are primarily concerned with one or another of the present series of investigations, there is no attempt to report each in turn; rather the results are introduced in the contexts in which they are most relevant. In all of the discussions, technical details of the analyses are relegated as much as possible to appendices, tables, and footnotes; many are further amplified by supplementary tables in appendix I.

Data from the analysis of children's stories are discussed largely in chapters four, five, and six; there the concern is with expectations about what a story is, how it is structured, and how its form can be put to use in response to varying demands. Chapter four also discusses data concerning the expectations of six and nine year olds about what a story is. Other data from the interviews and open-ended questionnaires are reported in chapters seven and eight, where the general concern is with the way in which verbal responses are formulated by different age-groups. Chapter nine turns directly to the nature of the construct system brought to bear upon stories, exploring the general characteristics of responses to the grids as well as the relationships among constructs at different ages. Chapter ten continues this exploration by using the grids as a source of information about general reactions to the spectator role; this is augmented by results from the supplementary study's exploration of responses to other spectator-role genres and media. Finally, the last chapter returns briefly to more general considerations, providing a summary of the point of view adopted rather than of specific findings.

To help untangle the various samples, instruments, and discussions of results, the last of the supplementary tables in appendix I provides a brief summary of the overall design.

CHAPTER IV

THE EMERGENCE OF A SENSE OF STORY

1. Introduction

Our discussions have given the spectator role an important, even central, role in individual and cultural development, but clearly it is a role defined largely from the perspective of the adult looking back upon his earlier experience. This chapter will attempt to deepen that perspective by considering the spectator role as it appears to the child rather than the adult. We will be asking when spectator role discourse emerges as a separate part of language experience, how it is marked or distinguished by the child, and what specific sorts of expectations and presuppositions he develops about it. The discussion will draw upon a range of sources, including but not limited to results from the investigations introduced in the previous chapter. Though the focus will be on the 'sense of story' as a typical and central example, it is the spectator role in general which is the real topic of what follows; the relationships between the specific illustration and the more general category should become clear in the course of the discussion.

2. Early Forms of the Spectator Role

The first question to address is whether or not spectator role language exists at all for the very young child. Is it meaningful to claim that he uses language to reflect upon, organize, and assimilate his experience rather than simply as a part of his ongoing transactions with the world? Many traditional theories of language development would certainly imply that the spectator role would be a later acquisition, that language begins within a supporting social context without which it does not function, and that the earliest functions of language are interactive, even imitative, and hardly reflective and detached.

Certain devices which later become part of the repertoire of poetic form correspond to very primitive, even pre-language functions. Rhythm, for example, was discussed in the first chapter as an underlying physiological phenomenon of crucial importance in organizing ongoing life-processes. A close link between these body rhythms and the rhythms of language has often been noted. Vygotsky (1971) for one has attempted to use it to explain the pervasiveness of work songs and chants, and to see in them the ur-forms out of which literary uses of language, detached from work, later develop. Chukovsky (1963) and White (1954) have also in their own separate ways noted the extent to which the young child responds to rhythm. Both have noted, one with Russian and the other with New Zealand children, that there is a trancelike fascination with verse that enthrals a child even with adult poetry far above his level of comprehension. A child apparently expects to enjoy the rhythm itself, rather than to understand the words: a four-year-old's fascination with "Ode to a Grecian Urn" is one example which White has cited.

Pre-Sleep Monologues

More can be said about the origins of the spectator role, however, than simply that it eventually incorporates processes present even in the infant. Our best approach is through Ruth Weir's discussions of Language in the Crib (1962). This study is based upon the pre-sleep monologues of Weir's son Anthony, recorded as he talked himself to sleep each night between his twenty-eighth and thirtieth months; roughly, at two-and-a-half. These monologues pose a basic challenge to traditional theories of language development, as George Miller notes in his introduction to the book: if language learning depends upon a supporting environment responding to vocalizations, the monologues should never have taken place at all. They cannot be explained as perseveration, the reactivation of traces of language behavior 'left over' from the child's day-time activities. On the contrary, they suggest (in Miller's words) "persistent, combinatorial play." From our point of view, they are clearly language in the spectator role, with no external demands, no audience, no point to make or conclusion to reach.

Weir's discussions throw light on many aspects of the development of syntactic, morphological, and phonemic structures. For our present purposes, however, it is the larger units of discourse that are of most interest. It is with larger units--sequences ranging from several sentences to as many as twenty and thirty--that early forms of the spectator role are most evident. (Weir found that pause length could be used as a stable and consistent index to segment the monologues into sentence-units; it is these divisions which are used in the examples which follow.) Although Anthony is alone while the recordings are being made, his monologues very much take the form of a social interchange. He repeatedly commands, asks, chides, and addresses real and imaginary characters present only in his imagination; in Langer's (1953) terms, he creates for himself a 'virtual' world, a semblance of reality.[1] This appears strikingly in the inventory of vocabulary, where the most frequent personalized noun is Bobo, a toy which according to Weir had no special significance for Anthony other than in its role as audience. It was not particularly favoured during day-time play, and was not missed when the family left for vacation without it. In the monologues, however, Bobo emerges again and again, in such contexts as "There's the white blanket Bobo," "Look what Bobo did," and "Bobo night night."

Within this virtual social frame, Anthony develops several different uses of language in the spectator role. Large segments of his monologues are concerned with the form of the language itself. Some of this focusses on syntagmatic and paradigmatic pattern practice, producing sequences which Weir likens to exercises in foreign language learning. Thus the following sequences:

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[1] Thus Langer (1953): "The poet's business is to create the appearance of 'experiences', the semblance of events lived and felt, and to organize them so they constitute a purely and completely experienced reality, a piece of virtual life" (p. 212). Langer argues that each of the arts creates its own special kind of 'virtual' experience.

What color
What color blanket
What color mop
What color glass (p. 109)

There is the light
Where is the light
Here is the light (p. 112)

These explore alternative patterns that are defined by Anthony's system of rules for language use. The first is more or less a direct substitution exercise, taking the basic sentence form and exploring the other words that might occur within it. The second works a series of transformations upon the basic syntactic pattern.

Weir comments that these monologues are freed from the normal demands of referential language use; instead, Jakobson's (1960) 'poetic function' often dominates. The sounds of language still present Anthony with great difficulties--some phonemic contrasts have not been mastered, others are unstable. Words are, or can easily become, focal in Anthony's activities; their form and substance quite easily divert him. This produces sound play that to an adult, used to language functioning tacitly and transparently, seems highly sophisticated. One example which Weir presents in some detail is "Blanket like a lipstick." The phrase itself represents a complex association between his mother's grooming habits and a corner of his blanket which he spontaneously identifies as his "blanket like a lipstick." According to Weir, this becomes a popular phrase in day-time speech; it also appears regularly in the monologues. She argues, however, that in spite of the underlying semantic association, its function is not primarily referential. She breaks it down into three units each beginning with a strong stress, and diagrams "a striking pattern of interplay of stops and /l/":

blanket	bl n kt
like a	l k
lipstick	l p s t k (p. 101)

She points out that the order of /l/ and /k/ is fixed in each segment, with further play upon the stopped consonants. The first segment also repeats the vowel phoneme /E/, the third segment the vowel phoneme /I/, giving even further formal unity to the structure as a whole.

As a single example, one can justifiably ask if such structure is not simply fortuitous; it gains its strength from Weir's ability to multiply such examples almost without end.[2] Some of the most interesting sequences involve an interplay between language-as-sound and language-as-meaning, a process clearly evident in the following segment of monologue, transliterated from the phonetic transcriptions of the entire corpus which Weir includes as an appendix:

1. Block
2. Yellow block
3. Look at all de yellow block
4. Dis is dot
5. What color dot
6. De left one
7. Left dot
8. Dats de left one
9. De next one
10. Twice block
11. Twice block
12. See de blocks
13. In de box
14. An den put dis one right der
15. aaa
16. Antonys ader block
17. Which one
18. Two
19. Right one
20. No left one
21. See
22. Dis one
23. Four (pp. 179-80)

This seems to begin as a simple enough expansion, held together by the /l/'s and /k/'s, and by the l-k frame of look and block. It moves on to associations between other stopped consonants, but by lines 6 and 7 Anthony seems to be experimenting with the different meanings of left. Later, similar contrasts between different meanings of right and of one appear to be focal. As with "blanket like a lipstick" the full structure of this monologue is phonetically very complex, playing upon basic contrastive elements of English phonemics. The next example is simpler:

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[2] Luria and Vinogradova (1959) have provided experimental verification of the extent to which sound-links can dominate sense-links for children, as well as for mentally retarded or fatigued subjects.

?oo
?oo
?oo
?oo
?oo
Get shempoo
Get shempoo
Tryin
Shampoo (10 x)
Shimming pool
Shimming pool
Shimming pool
Want some water daddy (p. 170)

This begins as a relatively clear attempt to master a word that has been giving difficulty; Anthony even acknowledges that he is "tryin" to get it right. Eventually he manages, and confirms his achievement with the ten repetitions of "shampoo." Once confident of that, he seems to move on to pure play, shifting from "shampoo" to "shimming pool" with /sh/, /m/, /p/, and /oo/ all preserved and in the same order. According to Weir, this is a word that he does manage correctly in his day-speech, confirming our sense that the distortion is serving the formal pattern rather than simply an error. But this word apparently strikes up semantic associations that bring Anthony back to the world of the present, and the demand for something to drink.

Finally, we should mention one of the clearest examples of sound-play with no evident semantic content at all:

Bink
Let Bobo bink
Bink ben bink
Blue kink[3] (p. 105)

What do we want to make of Anthony's monologues in the context of the origins of the spectator role? They are certainly highly expressive, in the sense of our model, with form fluid, topics changing easily, and remaining very close to the self. It would not be pushing it far to claim that the role they are playing is much like that we gave to gossip, a making sense of the world by talking it through in a social context. Here

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[3] In the full transcriptions Weir gives the last word of this segment as "king" (p. 167); her discussion of the example earlier, however, suggests that "kink" is accurate.

Anthony plays all roles in the dialogue, but the social background is evident enough. And significantly, as in gossip, the dialogues focus on experiences which the child is in the process of assimilating. He is fitting the world together, elaborating its implications, exploring its parts. The subject of these monologues is in one sense language itself; Weir calls it 'practice' and assigns many of the sequences to Jakobson's (1960) 'metalingual' function, but it is just as reasonable to recognize that at two-and-a-half language itself is one of the central parts of the child's world. Rather than practice, we would want to call Anthony's sequences play, and as such the beginning of discourse in the spectator role. When language as clearly has a 'substance' as it does for Anthony, when its sounds and contours are still focal, it is not stretching things much to see these experiments with sounds and language-patterns as directly analogous to the later experiments with patterns of events or ideas that we call literature. His attempts are very crude, of course; much of the delight they give comes largely because we know that a child produced them. Nonetheless they are early examples of language which has begun to move toward the poetic.

Ordering Experience

On the other hand, Anthony's concern with the substance of language is not the only 'topic' to be found in his monologues. There are some which are just as clearly attempting to make sense of the nonlinguistic world of which he is a part. Take for example the following sequence:

Daddy
Cobbers crossed the street
Cobbers crossed the street
Cobbers always cross the street
Cobbers always cross the street.
Look at Kitty
Come here Kitty
Make it all gone
That's the boy (p. 134)

Weir notes that crossing the street was a forbidden activity for Anthony, one that had been discussed with him at several times. Cobbers, the family dog, however, did not obey this particular injunction, much to the child's irritation. This problem seems to give the sequence its underlying structure, beginning with a report to "daddy" on the dog's misbehavior, emphasized twice and then generalized ('always'), and ending with an imaginary companion praising Anthony for eating his dinner ("Make it all gone, that's the boy"). (The middle sequence about "Kitty" seems to be prompted by a sound association with 'Cobbers' and 'crossed', as well as the semantic tie dog-cat.) Here the talking-through or world-ordering nature of the discourse is evident enough, and it is typical of many parts of the monologues. One of the longest sequences in the corpus, one discussed in some detail by Weir, seems to reflect the archetypal struggle for possession within a family. It is triggered off by "daddy" entering the room and then going out again; the discourse returns again and again to the topic of 'possession' and who belongs to whom. The sequence is very long and only part will be quoted here. It begins:

> That's for he
> Mamamama with Daddy
> Milk for Daddy
> Ok
> Daddy dance
> Daddy dance.
> Hi Daddy
> Only Anthony
> Daddy dance
> Daddy dance
> Daddy give it
> Daddy not for Anthony
> No

This opening segment sets out the topics that will recur throughout the full sequence. The obvious claim for the father in "That's for he" (meaning 'me'); the conflict in his recognition that the attachment is shared, and probably not even equally; and the offering of milk, precious enough to the child, "for Daddy." "Daddy dance," according to Weir a very rare phenomenon, seems to be a sound play, though it picks up some of the tonality of a refrain and reappears again near the end of the series, helping to hold the whole together:

Daddy put on a hat
Daddy put on a coat
Only Daddy can
I put this in here
See the doggie here
See the doggie
I see the doggie
Kitty likes doggie
Lights up here
Daddy dance
Daddy dance
Daddy dance
With Bobo
What color's Bobo
What color's Bobo (pp. 138-39)

Weir in her analysis traces a rondo-like pattern throughout this particular discourse; there is a broad circular movement that brings the discussion back to topics like "Daddy dance" and "What color."

Anthony's monologues give us a strong basis for claiming that the spectator role has already emerged by the age of two-and-a-half. The length of the monologues, the ease with which they are managed, and the obvious delight with which they are carried on makes us suspect that language used for looking-on rather than participating-in must begin even earlier, perhaps as early as the infant's first structured babbling to himself. There are few demands upon the language in these monologues, however; Anthony is alone and has no one but himself to please. The resulting discourse is very much in the expressive mode, with very little of what we would call poetic form, and little progress toward either pole of the elaborative choice. But because it stems from a context free from external demands, the discourse cannot help us much with the problem of how well the child of this age can, when he needs to, impose more form upon it.

3. Formal Characteristics of Stories

The stories which children tell, however, provide a direct approach to such questions. Though very young children may not be able to tell us in any full sense what they expect to find in a story, those expectations will be reflected more or less directly in their attempts to tell stories to us. The first question to be examined is the extent to which young children use conventional linguistic patterns to mark a story as in some way different from other modes of language use. Four formal characteristics were chosen as obvious conventional markers, and scored for the stories in the Pitcher and Prelinger (1963) collection: 1) the use of a title; 2) beginning with a formal opening phrase (e.g., "Once upon a time..."); 3) ending with a formal closing phrase (e.g., "the end" or "...ever after"); and 4) the use of a consistent past tense (excluding dialogue) in recounting the story. All four of these are culturally defined markers of language in the spectator role[4], markers used if anything more consistently in stories for children than in adult literature. The extent to which these markers are present in the stories children tell can, to a certain extent, be taken to indicate the degree to which stories have begun what is quite a long march from the child's initial recognition that a story is in some way different from other language uses to his final firmly established recognition of a story as a mode of communication or, in Harding's (1962) words, "an accepted technique for discussing the chances of life."

The use of a title or of a formal opening line were mutually exclusive within the subsample of 120 stories in the main analysis, and occurred together in less than 2 percent of the entire sample of 360. They were therefore combined into a single category of 'formal beginning'. A summed score, ranging from 0 for stories which showed none of the three formal markers to 3 for stories which showed all three, was also computed for each subject to provide an overall index of development.

Table 5 summarizes the main findings for this set of variables.

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[4] Sacks (1972) has made a similar point in the context of arguing that the younger children are in fact doing something that can be called 'telling stories' and not just 'talking to' the investigator. Either participant or spectator role discourse may be titled, of course, but for oral responses titles are likely only for stories.

Table 5: Use of Formal Elements of Story Form

Element[1]	Percent of Children Age 2 (n=30)	Age 3 (n=30)	Age 4 (n=30)	Age 5 (n=30)	Chi-square[2] (df=3)
1. Formal beginning	30.0%	43.3%	76.7%	86.7%	26.87***
2. Formal ending	0.0	13.3	13.3	46.7	23.82***
3. Consistent past tense	63.3	80.0	93.3	86.7	9.63*
4. Summed score mean	.93	1.37	1.83	2.20	$p < .001$[3]

*$p < .05$, two-tailed
**$p < .01$
***$p < .005$

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[1] Full definitions of all scores are given in appendix II.

[2] Test of age differences. There were no significant differences between the sexes using chi-squares with ages pooled for variables 1 to 3.

[3] Two-factor analysis of variance, linear age effects, F = 43.49, df=1,112; nsd for higher-order age effects, sex, and interactions.

Clearly even the two year olds have begun to mark stories in these ways: 63 percent of them use a consistent past tense, and 30 percent use one or another form of formal opening. Seventy percent of the two year olds use at least one of these explicit markers of story-form. From two to five all three methods of marking a story show a steady rise, till by five 87 percent are told in a consistent past tense, 87 percent use a formal opening, and 47 percent have a formal closing. All but 2 stories (6.7 percent) at age five are marked with at least 1 of these formal characteristics, and 47 percent are marked with all 3 of them. All of these age trends, taken singly or (through the summed score) as a whole, are highly significant; there are no significant differences on these variables between the stories told by boys and girls.

The following stories offered by Eliot, the first while he was two and the second at five, illustrate the extremes of development with respect to these variables:

> The daddy works in the bank. And Mommy cooks breakfast. Then we get up and get dressed. And the baby eats breakfast and honey. We go to school and we get dressed like that. I put coat on and I go in the car. And the lion in the cage. The bear went so fast and he's going to bring the bear back, in the cage.
>
> --Eliot M., 2;11 (p. 31)

> Once upon a time there were four cowboys. One was named Wilson, one was named Ashton, one was called Cheney. They all shot holdups and killed rattlesnakes and they ate them.
>
> Then a storm came and lightening came but there wasn't a fire. One day in the woods another storm came and there were no lightening rods so the grass burned and their house burned up except they had a hose.
>
> One day they got a dog and then in six days a wolf came and the dog got rabies. They shot the dog but before the wolf came a baby dog came out. One day the dog grew up like his father. They buried the dog and the wolf.
>
> Then a bear came to their house. Their house was made of brick and the bear got in the door. And the cowboys were bigger than the bear. They were two feet. Then they killed the bear.
>
> The cowboys lived in the jungle. A whole bunch of gorillas and lions and tigers came in their house. They were going to eat them up. They had a fight and every single one of the cowboys killed the gorillas and they lived happily ever after.
>
> --Eliot M., 5;1 (p. 121)

Many sorts of development have obviously taken place in the little over two years between these two stories, but the point to note for the moment is the progress from no formal marking as a story on any of the 3 dimensions studied here, to formal marking on all 3. The first is an expressive, almost transactional piece of writing, a report on events bound up closely in the world of the child. The second is clearly marked as a story, a poetic rather than a transactional form.

4. Fact and Fiction

These markers create an 'empty class', a category of language use that is marked off as something special before the child really understands just what is special about it. The earliest interpretation seems to be that a story is something that happened in the past, a history rather than a fictional construct. The pattern of development within the set of story-markers is consistent with such an interpretation: the past tense is the first formal characteristic to develop, followed by the equally past-oriented 'once upon a time'. Formal endings, with their implication that a story is complete in itself, develop much later; they are used by fewer than half of the children even at five years.[5]

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[5] If 'the end' is taken separately from endings such as 'happily ever after', the figure is only 30.0 percent at five.

Dorothy White's (1954) chronicle of her daughter Carol's early experiences with stories contains many incidents which can be seen to reflect a developing awareness of the story as a fictional construct. At 2;8, Carol treated stories as inviolable, and quickly caught her mother up if words were changed: "hot buttered toast," for example, was not allowed to be replaced by "afternoon tea" (p. 24). This aspect of a sense of story is long lasting; during some preliminary work related to the present study we found it even in seven year olds asked how they might improve a story they had said they disliked. Most of the children misinterpreted the task and promptly named a different story that was already better; Stephen nominated Sleeping Beauty as a story he did not like:

> If you were telling 'Sleeping Beauty', could you change it so that you would like it?--No.--Why not?--....--Is it alright to make changes in stories?--No.--Why not?--....--Do you think you could make it better?--No.--Why not?--Because you can't rub out the words.
> --Stephen, 6;9 (Applebee, 1973)

In White's transcripts there is no evidence that the question of the 'truth' of a story arose at all for Carol before the age of four, and even after that it remained somewhat problematic.

Just after Carol's fourth birthday, she heard a poem which ended, "But I think/Mice are nice."

> "Who thinks?" Carol asked yesterday. "The one who wrote the poem," I answered. She looked at me questioningly but said no more. (pp. 100-01)

This sense of the poem as having an origin is closely tied to the question of its reality. Two months later, the issue appears in another diary entry:

> C (appearing suddenly before me in the bathroom): How do you make things?
> D: What things?
> C: Babies and poems and things like that? (p. 125)

According to White, this concern was a major preoccupation at this time, not something that emerged spontaneously with respect to stories. Accompanying it was an emerging awareness of the story as a representation of what it describes. Thus six days after the last incident:

> "What is this book about?" she asked. "Oh, a boy and a girl who go for a walk in England," I answered. She hunts round the pictures and puts her finger on the children, then, doubtfully, "This book's not real England!" "It's about England, Carol." "Yes, but not real England, just paper England." (p. 127)

This concern is a major step forward, but there is still a long way to go. It is another 8 months before there is a diary entry noting that "Carol is now beginning to ask about 'true' and 'not true' stories. This is a new development [at almost five years]. Up till now everything has been accepted as real" (p. 188).

Nonsense

The progression toward the separation of fact and fiction is, however, not that simple and straight-forward. From a very early age, certain kinds of stories are accepted and enjoyed precisely because they are not real; instead they invert the normal order of events in a way that the child recognizes and greets with laughter. The Russian children's poet Chukovsky has discussed this with respect to nonsense verse, which he treats as an important means of reality-orientation. His point is much the one that we made in chapter II: to fully know one's reality, to be master of the world one has built for oneself, one must carry its principles through to the extremes, to be able to recognize what is complete nonsense as well as what is complete sense. Such inversions, Chukovsky (1963) argues, are a major technical device in children's verse and in verse for children. Characters ride everything but a horse, sail in everything but a boat, live in everything but a house. This sort of reality-confirmation through nonsense begins very early. Chukovsky noted it in his own daughter at 23 months, when she mixed dogs and cats, "Oggie--meow"--at first uncertainly and then with great delight (pp. 97-98). Such recognition of nonsense depends upon a firmly based sense of the real. If the child feels there is an actual discrepancy between the facts and his need to order them, he will be disturbed rather than amused. At three, Chukovsky's daughter was moved to tears when she heard that a cloud had walked across the sky, for "How can a cloud possibly walk when it has no legs?" (p. 104).

Enjoyment of nonsense also appears in White's (1954) records, sometimes in contexts where it was never intended. Just past three-and-a-half, Carol began to have trouble with The Good Night Moon by M.W. Brown:

> When the text reads
> Good night light
> And the red balloon
> Good night bears
> And good night chairs.
> Carol interrupted, "You don't say good night chairs."
> Good night kittens,
> Good night mittens.
> "You don't say good night mittens." As I read on saying good night to all the inanimate objects of the room, Carol began to consider this a very good joke indeed, the smiles grew into shrieks of laughter. (p. 73)

What is happening here is simple enough: Carol has just learned the distinction between animate and inanimate, and the story, albeit unintentionally, produces exactly the sort of sense-in-nonsense, the "Aren't I smarter than they!" delight which Chukovsky has described. With the recognition of nonsense, 'story' has become a more complex concept for Carol, one that embraces both history and nonsense; but she does not yet seem to recognize that fiction rather than fact is one of the conventions of the story-mode.

The question of the 'truth' of stories is an important one in the developmental course of the spectator role. As long as stories are seen as true, or at least (as in nonsense) simply an inversion of the true, they can only present the child with the world as it is, a world to be assimilated and reconciled as best he is able. Once the story has emerged as a fiction, once it has moved to the special place of stories, it can begin a new journey toward a role in the exploration of the world not as it is but as it might be, a world of alternatives rather than of certainties.

The Reality of the World of Stories

The question of the origin and reality of stories was pursued further in the interviews with six and nine year olds undertaken for the present study. Questions related to this topic were concentrated in the second interview schedule; they were scattered at different points in the interview to reduce perseveration and to allow the problem to be addressed from several different perspectives. Some of the approaches were quite direct, asking whether stories are always about things that 'really happened'; others were less direct, asking, for example, "Where does Cinderella live?" and pursuing the answer till the child's view of Cinderella's status (as person, doll, or historical character) begins to emerge. The questions and the results from them are summarized in table 6.

Table 6: Recognition of Fictional Elements in Stories

Question	Percent of Children Showing Firm Recognition of Fiction: Age 6 (n=22)	Percent of Children Showing Firm Recognition of Fiction: Age 9 (n=22)	Chi-square[1] (df=1)
Where does Cinderella live? Could we go for a visit?[2]	27.3%	86.4%	13.34***
Is Cinderella a real person? Was she ever a real person?	59.1	90.9	4.37*
Are stories always about things which really happened?	72.7	100.0	4.83**
Have you ever seen a giant?	59.1	95.5	6.34**
Overall rating at end of interview.[3]	50.0	90.9	6.99***

[1] Test of age differences. There were no significant differences between the sexes using chi-squares with ages pooled.

[2] Of those who recognize Cinderella is not real, none of the nine year olds and 53.8 percent of the six year olds say she is a puppet or dolly; $p < .0008$, two-tailed, using Fisher's Exact Test.

[3] Of those recognizing the fictional element, 18.2 percent of the six year olds and 95.0 percent of the nine year olds were rated as having a 'firm' rather than 'wavering' sense of the fictional element; $p < .001$, two-tailed, using chi-square with df=1.

*$p < .05$, one-tailed
**$p < .01$
***$p < .005$

Stories are astonishingly real even for six year olds who have had a year in a school environment where they hear stories at least daily. Heidi K. at 6;0 is very positive in her views:

> Where does Cinderella live?--With her two ugly sisters.--Where is that?--I think it's in an old house.--Could we go for a visit?--(No.)--Why not?--...Cause they'll say Cinderella can't come she'll have to wash up the plates and all the dishes and wash the floor.--Hmm, do you think we could go visit the ugly sisters?--(Yes.)--We could? Where would we go?......--Do you think it's near or far away?--Far away.

She continues, later in the interview:

> Is Cinderella a real person?--Yes.--What do you think she's doing right now?--.....--What do you think she might be doing?--Washing the floor.--Are stories always about things that really happened?--Yes.--When did the things in 'Little Red Riding Hood' happen?--Don't know.--When do you think they happened?--September? (It is September.)

Many are less quick to think that they could actually visit the characters they grant as real, posing one or another problem that would surely intervene. Distance is the most frequent obstacle, but there are many others. Thus Sarah L. (5;9), responding to the same questions:

> Where does Cinderella live?--In a castle.--Where is the castle?--Near the river.--Could we go for a visit?--No.--Why not?--You'd have to walk through the river.--If we could get over the river, would she talk with us?--Yes.

Children's beliefs at this age are complex, however; they have not only the special problems of the story world to disentangle, but also questions of life and death, real and unreal in the world around them. Many of the children shifted ground in the course of the interview. Kevin T. (6;2) begins confidently enough, even if a bit confused about just which story we are discussing. He ends confidently too, but with quite a different point of view:

> Where does Cinderella live?--In the three woofs house.--The three wolves place?--Yeah.--Where is that?--I don't know.--Do you think we could go and visit her if we knew where it was?--No.--Why not?--Because it's a long way away.--(Later:) Is Cinderella a real person?--No.--What is she?--She's just a little girl.--Is she a real little girl?--No.--What is she?--She's, she's, she's just a, just a dolly.--She's just a dolly? Now what about her house? Do you think her house is a real house?--No.--Is it something we could go visit?--No...no I think there ain't such things as Cinderella.--Where did we get the story about it from then?--From the books.--Aren't stories always about things that really happened?--No, some of them are.

"Just a dolly" is one transitional form that appears quite frequently in these interviews; relegating characters to the status of long-dead but once-living is another. Joseph L. (6;3) has taken this tack, illustrating in the process some of the confusion about meanings of 'real' that arose for some children:

> Is Cinderella a real person?--No.--Was she ever a real person?--Nope, she died.--Did she used to be alive?--Yes.--When did she live?--A long time ago, when I was one years old.--Are stories always about things that really happened?--Yes.--When did the things in 'Little Red Riding Hood' happen?--A long time ago when I was a baby, they happened. There was witches and that, a long time ago. So when they started witch... they saw two good people and they made some more good people, so did the more horrible people. And they made more good people and the bad people got drowned.--Are there still people like that?--Nope, they were all killed, the police got them.

Joseph's answer is interesting for its illustration of a process which we will come upon again and again: the world of story is fully assimilated into the child's general view of the world, made sense of on the child's own terms. Here Noah and the flood have clearly helped to assimilate the concept of evil story-characters, while the Biblical story itself has been given its concrete, present day avenging angels in the figure of the police. Joseph has evidently had a thorough exposure to the Biblical narratives; they also provide him with a framework for answering some later questions about giants:

> Have you ever seen a giant?--David saw one when he was a little boy.--Have you ever seen one?--No.--Why do you think you've never seen one?--One was made, only David picked...fired stones up and he fell to the ground and he was killed and he's in heaven.--Do you think there ever used to be giants?--Yes.--Do you think there are any now?--No, they were all killed by the police.

Responses to the questions on giants paralleled quite closely those on Cinderella, though they were often tinged with evident apprehension. Where giants were concerned, most children were careful to keep a clear distance:

> Have you ever seen a giant?--I've heard of a story 'ad one in it.--Have you ever seen a giant though yourself?--(No.)--Why do you think you've never seen one?--Cause I don't like giants.--Where do you think giants live?--In a very big house.--Do you think they'll ever

> come here?--(No.)--Why not?--They don't know what school to go to.--Are giants real?--....--Are there really such things as giants?--....--Do you think?--(Shrugs, uncertain.)--Do you think someday you might see one somewhere?--I'll see one in the zoo.--See one where?--In the zoo.--In the zoo?--Locked up.
>
> --Sally M., 5;8

> Have you ever seen a giant?--(Yes.)--You have? Where?--In Ireland.--...Have you ever seen a giant around here?--(Yes.)--Where?--In the woods.--Are giants real, are there really such things as giants?--(Yes.)--There are? Do you think one is going to come to school?--No, cause they're too dangerous.--Who's going to stop them?--The headmaster.
>
> --James B., 5;11

Many of the children were familiar with the television series, Land of the Giants, and they almost inevitably declared that those giants, at least, were not real.[6] Colin C. (5;11) illustrates the perplexity that many felt, a sense that some parts, at least, of the story world are fiction, while other parts just might be true:

> Have you ever seen a giant?--No.--Why do you think you've never seen one?--Because, I've seen one on television, but that was a robot one, and that's a long way from here I know.--Where do you think giants live?--South America.--Are giants real?--(Yes.)--They are? Do you think one will ever come here?--But sometimes, I think, someone's inside driving it.--Do you think a real giant will ever come here?--Yah, I just think that. And I always keep watch in my bedroom, cause I think ghosts come in and giants, and skeletons.

By nine, these problems have for the most part disappeared, though they occasionally surface again with very realistic stories. The difficulty which this series of questions posed for the nine year olds was one of accepting that I really was asking what I seemed to be asking. Amanda is typical, interpreting my initial request as one about the events of the story itself:

> Where does Cinderella live?--(long pause) I know she lives in a house with her two ugly sisters.--Could we go there?--NO! (with evident astonishment)--Why not?--Because it isn't true!
>
> --Amanda C., 10;1

Many others were similarly dismissive. Giants, for example, are just "something to put in a story" as far as Doreen B. (10;0) is concerned; and Samuel S. (9;9) knows that one he has seen had "a microscope near it" to "make it big." Even with these older children, however, there are some surprising reflections of the predominant attitudes of their younger brothers and sisters, especially if they can find a way to explain why story characters and events are not a part of the world in which they are living. Thus Bruce B. (9;7) is quite consistent in his responses:

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[6] Though this was true with this particular television series, later investigations found no evidence that television stories were in general less real than other forms as far as these children were concerned. See below, chapter X.

> Where does Cinderella live?--In a palace.--Where is the palace?--Don't know.--Do you think we could go visit her there?--It's just like a cartoon.--Could we go visit her there?--Well that goes back in time. You need a time machine or something, could make you go there, so you couldn't.--(Later:) Have you ever seen a giant?--We don't live when the giants was.--Where do you think they live?--Caves, up in the north, I mean in these hills.--Were they real?--I think so.--Do you think there are any left now?--No, died.

Bruce remains very much in the minority at nine, with fewer than 10 percent of his peers persisting in such beliefs. But the fact that he is able to continue in this way, even if in the minority, is an important reflection of the role stories play. They remain very much a presentation of the world as it is or has been, and have not yet emerged as a mode to consider ways in which the world might be.

The Origin of Stories

The child's sense of the origin of stories is closely linked with the extent to which they are seen as about things that really happened or are just 'made up'. At six, a story is above all else something that comes from a book. Many are aware that books come from shops and are made in factories, but finally, before the book there is another book. Thus Arthur J. (6;0) has firm expectations about how a factory operates:

> Where do stories come from?--Ah,...in the factory somewhere.--Where does the factory get the story?--From its next door factory.--Where do stories come from first?--Um, machines.--How do the machines know what to put in the story?--Cause of the printers.--How do they know what to print?--Because they turn a button, ah, print it.--And how do they know how to turn the button?--A man turns the button.--And where does the man get the story from?--Huh?--Where does the man get the story that he puts in the machine?--I don't know.

Ralph W. (5;8) illustrates another common response: books come from libraries, and he will be glad to direct me.

> Where do stories come from?--*From the library.*--Where does the library get stories from?--*From the shop.*--Where does the shop get them from?--*A shop.*--How does the shop get stories?--*Well when you go to the library ya see, when you go to your library, not the one down there, the one that's just over the road there's a library there at the other school. When you stop you get some library books.*

By nine, most of the children are quite well aware that stories are made up, the product of men; even if the route is circuitous we invariably end up at that point:

> Where do stories come from?--*Books.*--Who makes the books?--*Printers, they print books.*--Where do we get the stories from?--*People write them down.*--Where do they get the stories from?--*From their mind.*
> --Bruce B., 9;7

> Where do stories come from?--*Books.*--Where do books come from?--*Factories.*--Where do factories get the stories to put in the books?--*From machines.*--How do we get the stories in the first place?--*Printed, they're printed.*--How do we know what to print though? Where does the story that we print come from?--*A man writes it, and he sends it to them.*--How does the man who writes it know what to write?--*He makes up the story himself.*
> --Gilian R., 9;6

Many, of course, come to the point more quickly:

> Where do stories come from?--*People make them up.*--Where do they get the stories?--*People do things and they probably write them down. Sometimes they just make them up.*
> --Amanda C., 10;1

Between six and nine, the proportion of children who eventually assert that stories are 'made up' rises from 30.8 percent to 95.5 percent, a large and highly significant jump. There are no significant differences between boys and girls in their sense of where stories come from.[7]

Sources of Scepticism

During the preliminary study, wide discrepancies had emerged in the extent to which children of the same age thought that stories were 'made up' rather than 'real'; in a few cases, this seemed directly related to disillusionment provided by more sceptical older brothers or sisters. This was posed as an hypothesis for the main study and tested using the results from the six year olds in interview two. (Nine year olds were excluded since almost all of them had already accepted stories as made up.) Frequencies for these comparisons are small, but large enough that we would expect at least to find trends emerging if the hypothesis were viable. The data are summarized in table 7: they provide no support at all for the hypothesis. None of the differences between the two groups are significant, and most are not even in the predicted direction.

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[7] Chi-square for age = 16.60, df=1, $p < .0001$, one-tailed. Chi-square for sex = 0.88, df=1, nsd.

Table 7: Effect of Older Siblings on Recognition of Fiction in Stories

	Percent of Six Year Olds Recognizing the Fiction		
Question	No Older Sibs (n=8)	Older Sibs (n=14)	Fisher's Exact Test[1]
Where does Cinderella live?	50.0%	25.0%	nsd
Is Cinderella real?	62.5	57.1	nsd
Are stories always about things that really happened?	87.5	64.3	nsd
Have you ever seen a giant?	50.0	64.3	nsd
Where do stories come from?	50.0	21.4	nsd
Overall rating at end of interview.	50.0	50.0	nsd

[1] Using Siegel's (1956) tables of critical values, one-tailed.

The variations in the percentages reported earlier, in table 6, take us further in understanding the mechanisms underlying the child's development of a sense of stories as make-believe. They suggest that the six year olds begin to grasp that, in general, stories do not have to be about real things before they have accepted that many of the characters they have come to know well are themselves part of this fictional world. Most of the children are ambivalent, ready to declare with considerable determination that Cinderella is real, for example, and giants 'made up'; others dismiss Cinderella as 'just a puppet' and stoutly defend a more-favoured story friend. Edwina S. (6;0) has such a preference:

> Is Cinderella a real person?--(No.)--She isn't? What is she?--Somebody dressed up in Cinderella's clothes.--Is Snow White a real person?--(Yes.)--She is? Where do you think she lives?--In her country.--Could we go to visit her?--(No.)--Why not?--Cause she lives in the country.--Do you think that there might be a way to visit her sometime?--(Yes.)--What do you think she is doing right now?--Washing up.

Such exchanges, and there are many of them, suggest that there is no sudden realization that a story is 'just a story', however much that has become the universal response by nine or ten. Instead, the characters shift slowly toward that special world of story, as each becomes more difficult to reconcile with the rest of the child's knowledge of the world. Edwina S., for example, knows enough about actors and actresses to realize that the television version she has seen is just about somebody dressed up in Cinderella's clothes, and that has been enough to tip the balance of reality. Table 6's summary statistics do not reflect the extent to which the six year olds are uncertain in their beliefs. The final rating, for example, was initially on a four-point scale, with categories for clear recognition of the fictional element, for recognition but wavering, for real but wavering, and for clear acceptance of stories as real. The two 'wavering' categories account for 72.7 percent of the responses of the six year olds (and only 13.6 percent of those at nine). Evidently by six, though they will still defend the reality of some of their stories, doubts have begun to arise for the majority of the children.[8]

5. Further Expectations About Stories

What Stories Are About

Part of a child's sense of story involves the content of stories, what he expects them to be about. This was investigated in the interviews by asking, "What sort of things usually happen in stories?" and following it up with questions dealing with appropriate and inappropriate things "to tell stories about." As a whole, this series produced little in the way of consensus; many different things happen in stories, and many different things were listed in response. At both six and nine, the general question about 'what happens' elicited a mixture of summary comments like "nice things" or "funny things" and of concrete examples: "Sometimes about naughty draculas or naughty men with guns or police" (Joseph L., 6;3), or "Like Rapunzel is about a witch and he tries to climb up the tower to get the girl down" (Samuel S., 9;9). A handful of responses from the older children showed an awareness of a story as a formal structuring of experience:

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[8] We can cite other support for the finding that even at six, children are willing to defend the reality of many stories. Piaget (1929, p. 105) has commented briefly on it in his studies of Swiss children. Freidson (1953), working with American children, comments that five year olds "do not seem to use any criterion of reality" in discussing stories. Even by their third year in school, "we find most of the children accepting the stories if not as true events that directly effect them, then certainly not as 'just' stories.....The children seem mostly to be impressed by the likely impossibility...that the events they experience in drama are real, and their reactions are more intense...than those of older children."

> What sort of things happen in stories?--Well there's a middle, I mean there's a start, a middle and an end, so it's like, ah, first you tells you about it, then it gets exciting, then at the end they live happily ever after.
>
> --Bruce B., 9;7

There were no discernable age trends in the answers produced; the older children were just as likely as the younger to respond with a list of specific examples or a more general story-construct.[9]

The questions on appropriate and inappropriate subjects for stories produced a similar diverse response. Arthur J. (6;0) suggests we tell stories about Jack and the Beanstalk; James B. (5;11) says they can be about "Anything you like to tell us." Among the older children, Grant H. (9;8) reports we tell stories about "adventures"; Bruce B. (9;7) lists "a hen, a rabbit, a fox, and the three little pigs." Children at both six and nine found it significantly more difficult to list inappropriate subjects for stories than to list appropriate ones (table 8). At six this request led to a good deal of misunderstanding and prompted considerable ingenuity. Joseph L. (6;3) thought I wanted to know why he so often did not get to hear the story:

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[9] Chi-square = 0.76, df=1, nsd. The nine year olds were somewhat more likely to respond at all, however. They formulated some sort of response in all cases, compared with 87.3 percent of the six year olds; chi-square = 3.610, df=1, $p < .06$, two-tailed.

Table 8: Expectations About Suitable Subjects for Stories

	Percent of Children Answering			
	Six (n=22)	Nine (n=22)	Boys (n=22)	Girls (n=22)
Suitable subjects only	54.5%	31.8%	45.5%	40.9%
Unsuitable subjects only	0.0	0.0	0.0	0.0
Neither	18.2	0.0	4.5	13.6
Both	27.3	68.2	50.0	45.5
	100.0%	100.0%	100.0%	100.0%

Age contrast in ability to answer both, chi-square = 5.83, df=1, $p < .01$, one-tailed.

Sex contrast in ability to answer both, chi-square = 0.00, df=1, nsd.

Suitable vs. unsuitable at age six, McNemar's test = 10.08, df=1, $p < .005$, two-tailed.

Suitable vs. unsuitable at age nine, McNemar's test = 5.13, df=1, $p < .025$, two-tailed.

> What things do we not tell stories about?--If you talk they shut the book up like that (slapping his hands together).--What kinds of things do we never tell a story about?--If you shout and then you're naughty you have to sit on the floor. And they won't read you a story, if you're standing up.

Beatrice S. (6;1), on the other hand, had a ready enough response: the stories you do not tell about are the ones "you listen to." Sandra A. (5;11), somewhat similarly, declared that one does not tell stories about the three bears: "I haven't got the book of three bears." A few of the children did have some sense of appropriate and inappropriate topics, however. Thus Clifford C. (5;10):

> What things don't we usually tell stories about?--About rubbish, we don't.--Why don't we tell stories about rubbish?--Cause people don't like stories like that.

By nine this sense of the inappropriate is much more firmly developed, though the question still causes significantly more difficulty than the parallel one about appropriate subjects. Two broad classes of responses were evident: we should not tell naughty stories, and we should not tell dull ones. Samuel S. (9;9), for example, declared you should not tell stories about 'rude things'. And Belgin C. (9;2) has a more specific example in mind:

> What things don't we usually tell stories about?--Horrible things.--Why don't we tell stories about horrible things?--Cause it's not very nice.--What kind of horrible things would you not tell a story about?--Ah, you wouldn't tell stories that, that you've done in the holidays and your mum might hit you and that. And some people might tell some people, and they might get told off, their mums.

Responses which implied that stories should be interesting often picked inanimate objects as things not to tell stories about. Marissa C. (9;6) would not tell stories about "plants and trees," because "Nothing much can really happen to them." Bruce B. (9;7) similarly would not tell stories about "cars and clothes," because "they're not human beings."

The difficulty which children have in listing things which stories should not be about is related to the model of growth outlined earlier. Expectations about stories are patterns of implications built up out of previous experience: by definition this does not include exposure to stories 'about things we do not tell stories about'.

Common Character Types

They do include exposure, however, to character types which appear and reappear in different stories. The range here is very wide, with much of it overlapping the everyday world with which the child is also familiar: mommy and daddy appear in stories, as well as the Wizard of Oz and the Three Little Pigs. If our findings are accurate, most of these story characters become part of the 'real world' which the young child is coming to master. Those which we as adults recognize as purely story characters are the beginning of what we might call the child's 'literary' or 'cultural' heritage, though the child does not recognize them as such; they are reference points which children share with one another and with the world of adults. A child who plays the part of a story character, for example, is taking up a role whose possibilities have been defined by the story he has heard, and both he and the other children will understand, in an unconscious way, what those possibilities entail. This sort of assimilation extends even to linguistic structures which the child would otherwise find unnatural. White (1954), for example, listened in on

Carol at 3;8:

> Tonight after tea I overheard Carol telling a story...about the brief Sunday walk today. "There's a hospital. Sometimes a motor car came by and sometimes a truck. Sometimes a tram car came by and sometimes the people." She was following the phrasing and my exact intonation of voice when I had read the passage from The Little White Gate, "Sometimes a hedgehog came by and sometimes a mouse." (p. 76)

We should also expect to find such experience with stories overflowing from the world of stories-heard to that of stories-told. To pursue this, the stories from the Pitcher and Prelinger (1963) collection were scored for the presence of named story characters or of unnamed characters of types peculiar or nearly so to the fantasy world (e.g., witches, ghosts, cowboys and Indians). In the subsample used for statistical analysis, such use of stock characters did not appear at all in the stories at two, rose to 16.7 percent at three, 13.3 percent at four, and 33.3 percent at five.[10] In the full set of 360 stories, Santa Claus was the most frequently named character, cowboys the most frequent type, followed closely by witches, Indians, giants, and ghosts in declining order of frequency. The major characteristic of the use of these characters, however, was the diversity within and between ages; even cowboys were used in only 17 of the 360 stories, Santa Claus in only 8.

The extent to which children develop expectations about story characters was also explored in the interviews with six and nine year olds. One set of questions followed up Kuethe's (1966) empirical finding that in our culture dogs tend to be associated with boys and cats with girls, and further that this adult schema is reflected in the pairings which appear in children's stories. If children are building up expectations about stories on the basis of their previous exposure to them, they should expect a boy in a story to have a dog for a pet, and a girl to have a cat. Further, children's continued exposure to stories between six and nine should make this expectation stronger for the older than for the younger children.

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[10] Again, fuller definitions of scoring categories are included in appendix II. Chi-square for age = 12.69, df=3, $p < .005$, two-tailed; chi-square for sex = 0.25, df=1, nsd. The uneven rise between two and four may be a sampling fluctuation; in the full sample of 360 the dip is not present.

The results from these questions are summarized in the bottom section of table 9. At six, some 46 percent of the children expect boys to have dogs for a pet, and 32 percent of them expect girls to have cats; both proportions rise significantly between six and nine, where they hover near 80 percent. The trend at six for the boy's pet schema to be more fully established than the girl's pet schema is interesting, in that it directly reflects Kuethe's findings[11]: the stories he surveyed had boys

Table 9: Knowledge of Common Story Characters

Character	Percent of Children[1] Age 6 (n=22)	Percent of Children[1] Age 9 (n=22)	Chi-square[2] (df=1)
1. Lion	27.2%	40.9%	5.83**
2. Wolf	54.5	77.3	1.62
3. Rabbit	13.6	59.1	7.96***
4. Fox	4.5	63.6	14.57***
5. Fairy	9.1	50.0	6.99***
6. Witch	22.7	77.3	11.00***
7. Three or more of the above	40.9	86.4	7.96***
8. Boy's pet	45.5	81.8	4.81**
9. Girl's pet	31.8	77.3	7.43***

[1] For 1 through 7, the percentages are of children above the median in knowledge of each role. The data are not comparably scaled and cannot be used to determine, for example, whether a 'fox' or a 'wolf' has a more firmly defined role for these subjects. Scores for category 2 are skewed, and are divided here into those at or above the median.

For category 8, the percents are of children reporting that a boy in a story usually has a dog (and only a dog) for a pet; for 9, the percent reporting that a girl in a story usually has a cat (and only a cat) for a pet.

[2] Test of age differences. For 1 to 7 this is a median test; for 8 and 9 the ordinary chi-square. There were no significant differences between the sexes using chi-square tests of main effects, df=1, two-tailed.

*$p<.05$, one-tailed
**$p<.01$
***$p<.005$

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[11] Following up earlier studies of adult expectations, Kuethe (1966) studied 600 children's books from his local library: 202 had a male with an animal, 91 had a female with an animal. Specific pairings were 67 boy-dog, 19 boy-cat, 25 girl-dog, and 26 girl-cat. There were no other gender-specific pairings.

with dogs more than twice as often as they had girls with cats.

The data also allow some investigation of the relationship between these story schemata and other aspects of the child's life. Eric M. (6;1), for example, is less sure than most about what to expect:

> What kind of pet will a boy in a story usually have?--He'll usually have a cat or a dog or a bird or a parrot or a rabbit or a baby monkey.-- What kind of pet will a girl in a story usually have?--A hen.--Do you have any pets?--I have a pussy cat but not a dog because some,...my cousin, he brings his dog out and he goes after me if I bring some toys down to play with.

Eric, in addition to his fear of dogs, is one of a number of children whose own pets reverse the cultural pattern, a group which we would predict to be less likely to recognize these story schemata since they would be in direct conflict with an important situation in their own lives. For the nine year olds the schemata were too firmly established to test this, and none of the six year old girls in the sample had a dog for a pet. There are, however, a group of 8 six year old boys who have cats rather than dogs. Of these, 4 said that boys usually have a cat for a pet, whereas none of the other six year old boys expected a boy in a story to have a cat for a pet. (This difference is significant at the .01 level, one-tailed, using Fisher's Exact Test.) Of the same 8 boys with cats, 2 said that a girl in a story is likely to have a dog for a pet, compared with only 1 of the remaining six year old boys; this is again in the predicted direction but is not significant.

These figures are interesting but their interpretation is ambiguous; the pairings boy-dog and girl-cat are cultural and likely to be met in contexts other than stories. Rather than expectations about stories, we may be measuring what these children expect to find in all situations. Certainly Eric M. found it necessary to explain to us why he had a cat rather than a dog. Another series of questions dealt with expectations which are derived directly from the story-world, though in this case we lack Kuethe's supporting preliminary work. This set began with the declaration that, "When you hear a story about turtles, turtles in the story are usually very slow," and went on to ask what lions, wolves, rabbits, foxes, fairies, and witches in stories are "usually like." The characters were a blend of real animals that children would be likely to have encountered in stories, as well as some characters with whom they would have had contact only through the fantasy world; the six used in the interview were selected to provide a range of responses on the basis of results during the preliminary study (Applebee, 1973). Responses to each character-type were ranked on 4-point scales ranging from firmly defined expectations based on culturally appropriate story-roles to descriptions based in real-life characteristics. For witches and fairies, who have no real-life counterparts, this end of the scale was defined as descriptions of dress or appearance without assignment of role characteristics. For all 6, a fifth category was used for responses that indicated no recognition of the character at all. A total score was also computed for each subject, equal to the number of characters (out of 6) having firmly defined role expectations.

Results from these questions are summarized in the first section of table 9 above. Differences between the ages and sexes were tested by dichotomizing each score at its median. Clearly there are sharp differences between the six and nine year olds on the set as a whole, and for all of the characters except wolves taken separately. At six, only 41 percent of the children have firm expectations about the roles of even half of the characters; by nine this has risen to 86 percent of the children interviewed.

Jon M. at 6;2 is typical of the children who answered with 'realistic' descriptions rather than with role evaluations:

> What is a lion in a story usually like?--A big animal, with, ah, big teeth, ah, its got all fur around it.--What is a wolf in a story usually like?--It's a big animal with big sharp teeth, in the woods.--What is a rabbit in a story usually like?--It's white, it has little teeth, and ah it's got little black feet with fur on it.--What is a fox in a story usually like?--Ah, a little animal, with, ah, big ears and brown fur around it.--What about a fairy?--Ah, it's just a, like, it flies about, like a moth.--What's a witch in a story usually like?--Um, sometimes it flies around in a broomstick.--What's she like?--Horrible.

Pressed about the witch he moves on to reveal a fuller set of expectations, but certainly these characters are not yet identified by the roles they play within a story context. Tina J. (5;10) has a much fuller set of expectations, though they are very much situation-bound, expressed as actions rather than in general terms[12]:

> What is a lion in a story usually like?--*He always there, for, he always fight Tarzan.*--What is a wolf in a story usually like?--*A wolf like to eat big, big children or little children.*--What about a rabbit in a story?--*He eats carrots and things.*--How about a fox in a story?--*A fox eats big children or little children, ah, four or five or six or seven or two.*--What's a fairy like in a story?--*A fairy is a fairy mother...*--What does she do in a story? Turtles are usually very slow in a story, what are fairies like?--*Like a white thing, very pretty.*--How about a witch?--*A witch very ugly, like he wouldn't be able to look like the yum yum.*

By nine expectations about the roles which the various characters play have become much firmer. Nancy F.'s (9;10) response is one of the most-fully developed, and also one of the briefest, in the whole sample:

> What is a lion in a story usually like?--*Fierce.*--What about a wolf. What is a wolf in a story like?--*Hungry.*--What about a rabbit in a story?--*Fast.*--What about a fox in a story?--*Sly.*--What about a fairy?--*Kind.*--And a witch?--*Wicked.*

Such culturally defined roles provide these children with a set of shared expectations about characters whom they meet in stories. In many stories, these expectations will be used directly: witch and fairy, for example, will be posed against one another as villain and hero. In other stories, these same expectations will be used in more subtle ways: the role of the cowardly lion in *The Wizard of Oz*, for example, is understandable only because we share an expectation that lions in stories will be brave. Stock characters are one of many ways in which children and adults simplify the tasks with which they are confronted. In this case they provide 'types' which can be used as elements or tokens out of which to construct more complex stories; they come 'ready-packed' with sets of expectations about how they will behave. These characters can of course be explored more fully, if that is the task the story-teller wishes to undertake; but they do not need to be if a brave lion, a sly fox, or a wicked witch will suffice.

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[12] The problem of generalization as opposed to role-expectations in these responses will be taken up in chapter VII.

Though the data in table 9 indicate striking age changes in knowledge of these roles, they provide no indication of the relative development of expectations from one role to another. Do children develop firm expectations about witches, say, before they do about lions? To make such comparisons it is necessary to have a criterion for judging whether the roles assigned to different characters are in any sense representative of equivalent degrees of cultural consensus. Such a scale was not available for the present study, but the analysis was taken a bit further by polling 6 adults in a seminar on language for their judgment of the 'usual roles' which each of these characters plays in children's stories. When responses were compared, 5 of the 6 character-types elicited equivalent constructs from at least 5 of the 6 adults: lions were seen as brave, rabbits as soft and cuddly, foxes as clever, fairies as good, and witches as evil. Interestingly, there was no consensus among the adults about the usual role of a wolf in a story; this was also the only character type which had shown no shift between ages six and nine.[13] The 5 constructs on which the adults agreed were taken as defining role expectations of more or less equivalent strength, and the responses of the children were rescored as reflecting or not reflecting this adult expectation. Each was treated as a superordinate construct subsuming a class of related answers; a fairy who makes wishes come true, for example, was scored as reflecting the adult construct 'good'; a witch turning people into frogs was treated as an example of the adult construct 'wicked'.

In this analysis, results are very different for characters met only in stories and those who are also a part of the real, non-story world. At six, 31.8 percent of the children expect a fairy to be good, 54.5 percent a witch to be bad, but none expect a lion to be brave, a rabbit to be cuddly, or a fox to be clever. By nine, there is very little change for foxes or rabbits (4.5 and 9.1 percent of the children, respectively, reflecting adult expectations), but lions are reported as brave by 31.8 percent, fairies as good by 86.4 percent, and witches as evil by 100 percent. Table 10 contrasts the results for the animal-roles with those for the two fantasy characters. At both six and nine, children are significantly more likely to have firm role expectations about the fantasy characters. This is not surprising: a lion in a story and a lion in a zoo will build up somewhat conflicting expectations in the child, whereas fairies and witches, restricted to the domain of fantasy, are able to build up a single, clear system of expectations more easily.

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[13] The adults were asked to list the 'major stereotype' and then all minor stereotypes clustered around each character. In defining consensus these major and minor sets were pooled. Constructs were also pooled under superordinate category labels rather than requiring identical vocabulary: 'good', for example, included 'good', beneficient', and 'kind'.

Table 10: Reflection of Adult Expectations About the Roles of Selected Animal and Fantasy Characters

	Number of Children Showing Adult Expectation	
	Age 6	Age 9
For any animal character only	0	0
For any fantasy character only	12	15
For at least one of each	1	7
For neither	9	0
Animal vs fantasy characters[1]	10.08***	13.07***

[1] Chi-square, df=1, for McNemar's test (cf. Siegel, 1956).

***$p < .005$, two-tailed

6. Summary

This chapter has provided a good introduction to the problem of investigating the origins and early development of a child's sense of story. Anthony Weir's monologues give us reason to expect that spectator role language begins very early for the child, quite likely as part of his earliest play with the sounds of language. By two-and-a-half, the earliest age at which we have many records, this use of language in the spectator role clearly includes the shaping of experience as well as of language: both Anthony in his monologues and the children in the Pitcher and Prelinger (1963) collection use their discourse to discuss events of importance to them.

It is also clear that from a very early age these discussions begin to be subsumed within the culturally provided frame of the story-mode; even the two year olds use some simple formal markers in 70 percent of their stories. By five, they have begun to absorb common story-characters as well into the stories they tell, and by six, to be able to explain the expectations which they have about witches and fairies, lions and wolves. All of these expectations grow firmer with age, of course, as the child's experience with stories in particular and the spectator role in general increases.

More striking, perhaps, than these indications that the child begins quite early to make use of the conventions of the spectator role, is the marked failure to separate spectator-role experience from the rest of their experience of the world. Whereas the adult, and even the nine year old, recognizes stories as 'just make believe', children as old as six, with a full year of school, are less dismissive. Some 73 percent remain uncertain about whether story characters and events are real; 50 percent tend to think they probably are. Though children apparently recognize nonsense at quite an early age, this is a simple inversion of the real rather than something 'made up' in the adult sense. Children preserve their stories in lands far away and times long ago before they finally surrender to the scepticism of their peers.

This lack of differentiation between fact and fiction makes the spectator role a powerful mode for extending the relatively limited experience of the young child. The stories he hears help him to acquire a set of expectations about what the world is like--its vocabulary and syntax as well as its people and places--without the distracting pressure of separating the real from the make-believe. And though eventually he will learn that some of this world is only fiction, it is specific characters and specific events which will be rejected; the recurrent patterns of values, the stable expectations about the roles and relationships which are part of his culture, will remain. It is these underlying patterns, not the witches and giants which give them their concrete form, which make stories an important agent of socialization, one of many modes through which the young are taught the values and standards of their elders.

CHAPTER V

POETIC FORM

1. Introduction

Spectator role discourse is a mode of language use marked by a reliance upon what we have called poetic form. In chapter II we cast our discussion of this form in terms of systems of relationships among the constituent parts of a work, but the discussion did not go far in exploring the nature of those relationships. This was more the result of our state of knowledge than of conscious choice, however; while the logical structure of transactional discourse has been quite fully explored, the structure of poetic form has proved relatively intractable. With the stories children tell, however, control of form is an important aspect of developmental change; it is also one in which the principles of poetic form are unusually highlighted because of the relative lack of complexity compared with adult discourse. Our investigations will in fact suggest two processes--centering and chaining--which are not only basic to the form of the children's stories but also generalizable as the major constituents of poetic form in general.

2. Organization and Complexity in Children's Stories

Age Changes

The number of elements which a person attempts to control in any given situation defines the complexity of the task with which he is confronted. Earlier chapters have suggested that such task complexity, or its degrees of freedom, is an important and obvious dimension of developmental change: we would expect that the elements which go into a story--its defining attributes--would grow more complex with age on virtually any measure of complexity we choose to use. This was explored by computing a number of simple measures for the stories in the Pitcher and Prelinger (1963) collection: number of words, number of T-units, number of characters, number of incidents, words per T-unit, and the use of dialogue. The T-unit (or minimal terminable unit) is a category formulated by Hunt (1965) in his studies of children's language as a more reliable index of maturation than the sentence, which fluctuates widely depending upon the criterion used for punctuation. The T-unit is linguistically defined and, roughly put, involves segmenting the discourse into the shortest units which can be left standing on their own. Compound sentences are split into their component parts, for example; complex sentences are not. T-unit length (i.e., words per T-unit) is directly related to linguistic complexity: the longer the T-unit, the more complex the language is likely to be in transformational terms. The T-unit has been widely used since Hunt's initial formulation and has been quite sensitive to developmental trends, as well as to situationally-based differences in language use. Rosen (1969), for example, has found wide and consistent differences in mean length of T-unit in response to different sorts of writing tasks by the same fifteen to sixteen year old students. Different writing tasks, in other words, lead to different degrees of complexity in language use as defined by T-unit length.

Table 11: Complexity in Children's Stories

Measure	Averages Age 2 (n=30)	 Age 3 (n=30)	 Age 4 (n=30)	 Age 5 (n=30)	F-Statistic[1] (df=1,112)
1. Number of words	31.0	75.2	110.1	218.9	94.43***
2. Number of T-units	6.0	10.7	13.0	28.3	105.85***
3. Words per T-unit	5.3	7.3	8.1	7.7	39.64***
4. Number of characters	2.1	3.9	3.4	5.4	28.45***
5. Number of incidents	3.2	4.2	4.3	7.4	22.36***
	Percent of Children				Chi-square[2] (df=3)
6. Using dialogue[3]	6.7%	16.7%	30.0%	53.3%	18.75***
7. Using complex plot-form[4]	16.7	40.0	56.6	73.3	21.16***

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[1] Test of linear age effect from two-factor (age x sex) ANOVA. A multivariate analysis of variance was carried through for measures 1 to 5. For age: F(linear) = 42.06***; F(quadratic) = 5.95***; F(cubic) = 4.67***. All sex and interaction effects, nsd. Degrees of freedom for all multivariate effects = 5,108. Predicted intervals between the ages were based on average age in months (cf. table 1, above) to one decimal place.

[2] Test of age differences; nsd for sex differences, ages pooled.

[3] Five year olds use more multi-character dialogue instead of two-character dialogue; chi-square = 3.18, df=1, $p < .05$, one-tailed.

[4] Plot-forms are described in section 3, below.

*$p < .05$, two-tailed
**$p < .01$
***$p < .005$

Table 11 summarizes the results on all of these measures of complexity. A multivariate two factor (age by sex) analysis of variance carried out on the 5 interval scales showed no interaction or sex effects, but a highly significant age difference; the five contributing scores also showed highly significant differences between the ages, when taken separately. The use of dialogue also rose steadily and significantly with age, appearing in only 7 percent of the stories at two but in over 50 percent at five. These findings are not surprising from any point of view, and would be consistent with almost any view of developmental processes. They provide, however, the introduction to the next question we want to ask: how does the child organize the complexity in the stories he tells?

Causality

Complexity in most areas of cognition is handled by the imposition of structure, and stories are no exception. One of the major sorts of complexity in a story stems from the number of different things that may be going on, the number of separate events or incidents. One way in which this sort of complexity can be reduced is by the introduction of causality, so that two or more separate incidents become a single set of 'things that result from' or 'things in response to' one another. Causality was studied by Ames (1966) in her analysis of a collection of children's stories similar to that used here. Her figures indicate that the proportion of children whose stories contain any sort of expression of causality increases sharply, from 8 out of 30 children at two to 32 out of 40 at five. At the same time, Ames finds a shift toward more explicit formulation of causality, that is, a smaller percentage of the older children rely simply upon juxtaposition, preferring to use such expressions as 'because', 'and', or 'if' to bind their stories together.

There are, however, a number of problems in the way Ames' data are reported, one being simply that many of the connecting words she tabulates do not in themselves indicate causality. 'And then', for example, is a very common structure in young children's stories, but it does not necessarily even indicate time sequence, let alone a causal relationship. One of the clearest examples of this is in a report by Griffiths (1935), who collected a sizable set of children's stories and had the advantage of knowing the context in which they had been told. Ike, a five year old, described an ink-blot for her:

> It's a ship sailing, there's mans in it, and they're working, and then they go and they swim in the water, and there's fishes there, and the fishes eat food, and then yer catch 'em, and then they swim. (p. 157)

In the context of describing the ink-blot, it is quite clear that the construction 'and' or 'and then' is a formalism, learned from others and used, as Griffiths points out, because Ike "merely wishes to tell about a boat, and fishes, and that they swim, and so on" (p. 157). This kind of structure is very prevalent in the Pitcher and Prelinger collection. Its function is probably analogous to that we postulated for the formal markers of a story: it is a structural feature whose significance will only later become apparent to the child, an 'empty class' whose possibilities remain to be exploited at a later age.

Because of such difficulties in Ames' data, and because her analysis is concerned with kinds of structure rather than with whether or not the story as a whole has structure, the stories in the present analysis were also scored for the degree to which the incidents were causally linked. A 4-point scale was used initially: 1) no links at all, 2) some links either expressed or implied, 3) clear but implied links among the incidents throughout the story, and 4) clear, expressed links among the incidents throughout the story. The latter two categories were combined for most of the analysis.[1]

Results for this measure show a consistent increase in structure

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[1] Scorer consistency for this variable was not good. The measure is a global one which depends in part on how the reader interprets the story as a whole; many of the stories are ambiguous enough that this interpretation changes from reading to reading. In spite of this, the variation between ages is great enough that clear trends emerge. (Scorer consistency for the various measures is reported in appendix II.)

Table 12: Use of Structuring Devices in Children's Stories

	Percent of Children				
Structuring Device	Age 2 (n=30)	Age 3 (n=30)	Age 4 (n=30)	Age 5 (n=30)	Chi-Square[1] (df=6)
1. Causal links: none	60.0%	33.3%	26.7%	3.3%	
some	16.7	46.7	36.7	26.7	33.11***
clear links[2]	23.3	20.0	36.7	70.0	
2. Climax of action: none	63.3	73.3	63.3	50.0	
natural	20.0	16.7	26.7	6.7	16.23**
thematic	16.7	10.0	10.0	43.3	
					(df=3)
3. One constant character	93.3	83.3	86.7	86.7	1.45
4. Similar action repeated	36.7	53.3	43.3	43.3	1.72
5. Single incident	33.3	20.0	6.7	13.3	7.79*
6. Constant setting	70.0	50.0	26.7	30.0	14.70***
7. Thematic center	0.0	3.3	0.0	13.3	nsd[3]

[1] Test of age differences. There are no significant differences between the sexes on the measures tabled here, using chi-square tests with ages pooled.

[2] The four and five year olds are more likely to express these links. Of those showing clear links, 7.7 percent of the younger and 34.4 percent of the older children express them; chi-square = 2.14, df=1, $p < .07$, one-tailed.

[3] Using Fisher's Exact Test to contrast the two older with the two younger age-groups.

*$p < .05$, two-tailed
**$p < .01$
***$p < .005$

as age increases (table 12). The majority of the stories at two years show no causal structure as measured by this index; at three most show some links but there is no increase in the proportion of fully structured stories. This begins to rise at four and becomes completely dominant by five. Together with Ames' (1966) results, this clearly demonstrates the tendency of the older children to use causality as one way to structure their stories.

Climax

Closely related to the causal links among incidents is the way in which they lead or do not lead to a climax. One aspect of this is purely formal, the marking through linguistic structure that we have already looked at in the previous chapter. Beyond that, however, there is the extent to which the events of the story have come to a logical stopping point: has a problem been solved, a moral stated, bedtime come? Or is the story presenting a more or less arbitrary slice of experience? Sacks (1972) has treated a closing as part of the set of expectations which mark the discourse as a story, but the point here is that this formal feature is also very functional: it ties the story together, segments it from other experience, and again gives a unity to its complexity. To investigate this, the stories were coded for a number of recurring types of endings (summarized in appendix II), which collapsed for analysis into three major categories: 1) no climax in the action, 2) a natural climax related to the ending of a concrete, specific series of events (e.g., the end of a day or coming home for dinner), and 3) a 'thematic' climax in which the closing incident solves a problem, punishes misdeeds, or rewards good behavior.

Structure in this sense remains a tenuous accomplishment for these children (table 12); 63 percent of the stories have no clear ending at all. Age changes are erratic in the sample of 120, but this may at least in part be a sampling error; in the full set of 360 there is a steady decrease in the percent showing no climax, from 66.7 percent at two to 62.5, 47.5, and 40.0 percent at three, four, and five, respectively. In both samples, however, there is an overall shift between two and five from having no climax toward having a thematic one.

Other Unifying Attributes

The last set of scores summarized in table 12 are indices of certain other attributes which can be used to give a story further structural unity. Each story was coded as having or not having 1) at least one character who is involved in each of the separate parts of the story; 2) a recurring pattern of action in the different incidents; 3) a single incident around which all of the action is organized (this is derivable from the complexity score for number of incidents but was in fact scored separately); 4) a constant setting (credited if there was no evident change in setting, even if the setting itself were never specified); and 5) a thematic or conceptual center to the story. Of these, the second and fifth need some explanation. Melanie's story at 3;6 illustrates the sort of unity through recurrent action that category 2 was designed to reflect:

> A little boy. Something happens--fighting. Then the mother was staying home. Then the daddy was staying home and they say, "Stop it." Then they still fight. Then it's all over. Then they went to bed and wake up and more fighting. Then something happens--more fighting. (p. 64)

Such fighting was one common repetitive pattern of action in these stories; others included killing, shooting, crying, crashing, eating, and breaking things. Number 5 in this set of variables, a thematic center, was designed for those stories that had a point to make or a moral to draw. Unlike the 'thematic' scores for climax of action, however, to be credited for a thematic center the story as a whole had to have a clear focus. Tracy's story at 5;8 is one of the nicest examples of this sort of unity. The problem of thinking too much is evident from the beginning, and disposed of neatly at the end:

> There was a boy named Johnny Hong Kong and finally he grew up and went to school and after that all he ever did was sit all day and think. He hardly even went to the bathroom. And he thought every day and every thought he thought up his head got bigger and bigger. One day it got so big he had to go live up in the attic with trunks and winter clothes. So his mother bought some gold fish and let them live in his head--he swallowed them--and every time he thought, a fish would eat it up until he was even so he never thought again, and he felt much better. (p. 133)

We would make quite different predictions about the developmental course of these five unifying devices. Thematic center we would firmly expect to rise with age; consistent actions, a single incident, and a constant setting we would expect to fall, victims of the increasing general complexity which the child can manage. The presence of a consistent character, however, is caught between conflicting trends and we are left with no basis for prediction: on the one hand shifting characters can be seen as another possible dimension of complexity (with cumulative narrative as a mature model), and on the other, the more contact with stories a child has, the more he will come to recognize that the general cultural pattern is for a story to maintain a central figure.

The results summarized in the last section of table 12 are as mixed as the predictions. Very few of the stories at any age have a thematic center, and the trends are not significant even though in the predicted direction. Setting and incidents behave as predicted, both falling off with age; the finding with incidents is not an independent result, of course, from that on the number of incidents already summarized. The continuation of a similar action throughout the story shows no significant age trends, remaining a prominent structuring device at all ages sampled here. And finally the presence of one character remains in the majority of stories at all ages, again without any significant age differences. There are no significant differences between the sexes on any of these measures.

Another aspect of the child's ability to structure more complex stories is the extent to which pronouns are given unambiguous referents and incidents a clear sequence in time. Since the degree of possible confusion in referents is directly related to the number of characters, and the amount of confusion in time sequence to the number of incidents, comparisons were stratified into stories above and below the median in number of characters and number of incidents, respectively. For both time sequence and pronoun referents, there is a slight but statistically insignificant tendency for the older children to be better able to handle more complex situations.[2]

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[2] Comparing the two oldest with the two youngest age groups separately on each strata for complexity using chi-square tests; interactions were tested by the procedure outlined in appendix II, again showing nsd.

3. An Approach Through Theories of Concept Development

Studies by Brown (1958), Vygotsky (1962), Bruner et al (1956, 1966), and others suggest that while the attributes of an object may remain more or less fixed, the way these attributes are used to define category membership or to elaborate a new concept shows clear developmental shifts. If we treat the plots of stories as concepts having certain possible sets of defining attributes--in particular characters, actions, settings, and themes--we can use this previous work in concept development to formulate quite a different approach to structure than that just presented.

In the present study, Vygotsky's (1962) discussion of concept development was used in conjunction with a random subsample of 25 stories not in the main analysis to define a set of typical conceptual structures for stories. Each of the patterns described below should be thought of as representing a selection of criterial or defining attributes and a specification of the relationships among them. Nine categories were originally defined and then scored for the full set of stories; these were later collapsed to six after the most-mature and least-mature forms specified were found to occur very rarely within this sample. The six used in the analyses will be described in detail in this chapter; all nine are summarized in appendix II.

Heaps

Vygotsky's stages of concept development were derived from experiments in which children attempted to master the concepts used to label (with nonsense words) a collection of blocks representing a variety of colours and shapes. (In this set, the word lag, for example, stood for tall large figures, bik for flat large figures, and so on.) Vygotsky labelled the first general stage of concept development 'heaps', from the tendency of the child simply to reach out and 'heap' the blocks up when asked to show the experimenter which blocks went together. As Vygotsky (1962) describes it, the heap is a method of solving a problem that adults would solve by using a concept, and "reveals a diffuse, undirected extension of the meaning of the sign (artificial word) to inherently unrelated objects linked by chance in the child's perception" (p. 59). In narrative forms, of course, we have no sign for the category (except in some cases the title), but we nonetheless have a conceptual 'whole' to organize. With Vygotsky's heap this organization is syncretistic, rooted in the child's perception and essentially unrelated to the 'characteristics' of the material being organized. This situation has a clear parallel in the stories children tell:

> A girl and a boy, and a mother and maybe a daddy. And then a piggy. And then a horse. And maybe a cow. And a chair. And food. And a car. Maybe a painting. Maybe a baby. Maybe a mountain stone, somebody threw a stone on a bear, and the bear's head broke right off. A big stone, this big /holds out arms/. And they didn't have glue either. They had to buy some at the store. You can't buy some in the morning. Tomorrow morning they're gonna buy some. Glue his head on. And the baby bear will look at a book.
>
> --Warren P., 3;7 (pp. 53-54)

> The daddy works in the bank. And mommy cooks breakfast. Then we get up and get dressed. And the baby eats breakfast and honey. We go to school and we get dressed like that. I put coat on and I go in the car. And the lion in the cage. The bear went so fast and he's going to bring the bear back, in the cage.
>
> --Eliot M., 2;11 (p. 31)

Eliot's organization is virtually that of immediate perception, with few links from one sentence to another. Warren's begins equally syncretistically, with an almost free-association list of characters, but it does take on further form in the last few lines. This is important to note, for it is a general characteristic of this whole analysis: modes of organization emerge clearly, but many of the stories 'slide' from one to another rather than representing 'pure' organizational types. The use of heaps by the various ages is summarized in table 13 below; fully half of the heaps in this sample come from the two year olds.

Sequences

Vygotsky's second major phase of concept development is what he calls thinking in complexes. Unlike heaps, complexes show actual bonds between the objects being grouped together but (unlike true concepts) the bonds are "concrete and factual rather than abstract and logical" (p. 61).

Table 13: Plot Structures in Children's Stories

Plot Structure	Number of Stories Age 2 (n=30)	 Age 3 (n=30)	 Age 4 (n=30)	 Age 5 (n=30)	Totals (n=120)
1. Heaps	5	3	0	2	10
2. Sequences	13	6	7	1	27
3. Primitive narratives	7	7	3	0	17
4. Unfocussed chains	0	2	3	5	10
5. Focussed chains	5	11	16	16	48
6. Narratives	0	1	1	6	8

Chi-square for age (two youngest versus two oldest) = 28.63, df=5, p<.0001, two-tailed.

Chi-square for sex = 1.47, df=5, nsd.

Vygotsky breaks complexes down into a number of stages which can be related to the types of organization present in children's stories. The first of these is what he calls an associative complex. Its basic form is a nucleus to which other objects are linked on the basis of concrete similarities, though the shared attribute may change from one link to another. With the blocks, for example, if the first chosen is a small red triangle, the child may later add a small block, a red block, and a triangular block, each linked to the nucleus on the basis of one shared attribute. Within the set of children's stories, those which most closely resemble Vygotsky's associational complex are what might be called sequences. The events in these stories have a superficial sequence in time, but (like the example from Griffiths (1935) quoted earlier) this sequence is arbitrary. Event A is said to happen after Event B, but there is no discernable causal or motivating link between them. Instead, the events are linked together on the basis of some shared attribute, some concrete similarity to the common center or core of the story. This center can take a number of different forms: it may be a certain kind of action repeated over and over, a certain kind of character (e.g., a bad man), or sometimes a 'scene' or situation (in Burke's (1945) sense) such as 'the events of the day'. In a sequence, the associations between the incidents and their center are limited to bonds of similarity rather than causality or complementarity; though the story can grow longer it cannot develop in new directions. The structure remains too weak to amplify the core around which the story is built, to explore or clarify the situation in any very productive sense. Still, the process of centering which appears here in this limited form, is a powerful one that will emerge again as part of more sophisticated plot structures.

The following series of stories illustrate some of the varieties that were classified as sequences:

> Little boy played. He cried. He's all right. He went home. He went to bed. When he wakes up you're gonna say good-night to him.
> --Daniel W., 2;10 (pp. 30-31)
>
> A doggie and he say "go out." And then Mommy take him in. Then the next day he went to sleep. All waked up and started to cry. All go to get dinner. Then we go to Cheshire. And we all sleep all by ourselves in the little bed.
> --Tricia W., 3;10 (p. 69)
>
> A fierce poisonous snake and he ate a monster. And then he telephoned on the telephone. He went to someone's house and he ate some dog dirty. He went in someone's car and ate the seat off. Then he ate some bushes. Then he went some stairs and ate stair meat.
> --Larry W., 4;3 (p. 85)

The two major forms underlying these stories seem to be 1) A does X, A does Y, and A does Z; and 2) A does X to M, A does X to N, and A does X to O. Daniel's and Tricia's stories represent the first of these patterns, though Tricia's shifts part way through from 'doggie' to 'we' as the constant attribute or center. Larry's represents the second pattern, rarer in this sample and perhaps developmentally more advanced; the two types were not separated in the present analysis, however. Sequences are the dominant form for the stories from the two year olds, and continue in about 20 percent of the stories at three and four (table 13).

Primitive Narrative

Vygotsky's second phase of thinking in complexes involves what he calls 'collections'. Here the structure is based on complementarity rather than similarity; objects are grouped together to form a set, as, for example, the knife, fork, and spoon form a set of dinner implements.

Vygotsky notes that this kind of complex is deeply rooted in practical experience; though we can create a superordinate construct (e.g., 'dinner implements') to describe the resulting complex, the basis for the child is still concrete, based in their mutual participation in the same practical operation, their functional cooperation. In children's stories, we can find a similar structure if we recognize that Vygotsky's functional unity is also a situational one; the objects which form a collection are different aspects of the same scene or situation. (From a slightly different perspective, they again have a common center.) Within the set of children's stories it is possible to define a set of primitive narratives whose structure is similar to that of Vygotsky's collection complexes. Each of these narratives has a concrete core or center--an object or event that has temporarily assumed some importance to the child--which is then developed by collecting around it a set of complementary attributes. Instead of a bad character leading to another bad character as happens in sequences, with primitive narrative a bad character will lead to a spanking, one of the complementary, situationally related implications of 'being bad' in the child's world. The stories that develop from this type of structure can sometimes be quite well-formed; the concrete core serves to give them a 'point' or focus which the 'collection' around it amplifies and clarifies. The situation by the end has been in a real sense better understood. This form of plot structure occurs in about 20 percent of the stories at two and three, and 10 percent at four. Though we have no direct evidence to bring to bear at this point, one would suspect that this is the major way in which children assimilate the stories they hear: as a collection of complementary events organized around a central situation or concrete core.

With the stories children tell, this remains a primitive form in the sense that its center and its amplifications are concrete rather than conceptual, with the links among them those that have been forged by shared situations; the form that results is in one sense fortuitous, a reading-back by the adult of more than the child put in. Trudy's story of Sugar Bear illustrates how well-formed some of the stories can be:

> Sugar Bear is so funny and furry. Sometimes when they go to parties at night, I put dresses on him. When I look at him, he has his face so mad. I got him for Christmas, and his face was so mad. And when my animals are bad, we made a stock, and we put them in a stock. They run and jump in the house and they shouldn't do it at all, 'cause the people downstairs don't like it. She plains about that noise. I spank the bears. I don't like them to be bad any more.
>
> --Trudy B., 3;3 (pp. 69-70)

Lucetta's and Kenneth's stories, on the other hand, do not have the same sort of control; yet still a concrete nucleus is clear in both:

> A little girl drawed her mommy. Then the mommy got mad at her and she cried. She lost her mommy's cookies. She got mad at her again. And she drawed her mommy again. And her mommy got mad at her again. And her daddy got home. That was Judy.
>
> --Lucetta D., 3;4

> The little boy dropped the ink. It broke. He cried. He cried some more. His mommy fixed it for him. He went to bed with it. The bottle didn't fall out and break. It was tied on to a string. He played with it.
>
> --Kenneth A., 2;10 (p. 32)

Unfocussed Chains

The next type of complex which Vygotsky describes is the chain complex. Here each element shares a clear concrete attribute with the next, but this defining attribute shifts from one element to the next; this forms a chain in which the head bears very little relation to the tail. In the experiments with the blocks, for example, the child may begin with a red triangle, add another triangle which happens to be green, and add to that another green block which happens to be square. In the children's stories, there is a corresponding set of unfocussed chain narratives. Here the incidents lead quite directly from one to another, but the attributes which link them continue to shift--characters pass in and out of the story, the type of action changes, the setting blurs. The result is a story which, taking its incidents in pairs, has much of the structure of a narrative, but which as a whole loses its point and direction. Thea's (5;0) story is one good example:

> A wildcat. Then a horse came. Then they had a fight. Then the wildcat was dead. Then the horse went off. Then he met another horse. It was a lady horse. Then they lived with each other. Then another wildcat came. He was the father of the wildcats. He fired up the father horse and he was dead. Then the mother wildcat came and the father wildcat took the horse home with him. Then they eated him up. The mother was crying. Then she found another father. Then she washed the clothes. Then a donkey came along. Then the mother was afraid to go there where her washing was done. The donkey married the horse.
>
> --Thea M., 5;0 (pp. 148-49)

The amount of material managed in a story such as this can be quite large, but its lack of a center or 'point' puts it in a transitional category on the way toward what Vygotsky has called a 'pseudoconcept'. Unfocussed chains are relatively rare in this sample, rising to about 16 percent of the stories at five, but they are important as the first example of the use of chaining as an underlying structural device.

Focussed Chains

A pseudoconcept in Vygotsky's analysis produces a result which resembles an adult concept but which remains perceptually rather than conceptually based. With the blocks, yellow triangles may be grouped together by the child not because of an abstract notion of 'yellow triangle', but because of the concrete perceptual associations among the members of the set. Vygotsky's blocks do not allow much amplification of this pseudoconcept, but in the children's stories there is a clear stage in which the earlier chaining and centering are joined. In its most typical form, the center is a 'main character' who goes through a chain of events linked one to another just as in the unfocussed chain. This produces a focussed chain narrative of the "continuing adventures of..." type. (It is quite common in adult genres (e.g., radio serials and many adventure stories) as well as in children's stories.) These remain pseudoconcepts rather than 'true' concepts, however, in that their center is rooted in the concrete. Kip's tale of Davy Crockett is typical of the sort of story that results:

> Davy Crockett he was walking in the woods, then he swimmed in the water to get to the other side. Then there was a boat that picked him up. Then he got to the other side. He went into the woods. He was in the place where Indians made. The Indians came and got him. Then pretty soon he got loose. The Indians let him loose.
>
> --Kip P., 4;9 (p. 83)

This sort of narrative structure is the most frequent type among the older children, accounting for over half of the stories at five.

Narratives

The last set of plots which we can trace in the children's stories seem to correspond to what Vygotsky has in mind when he talks of true concepts: the core which holds everything together has moved from concrete, perceptual bonds to abstract, conceptual ones. With stories, this is the stage at which they begin to have a point or moral which is designed rather than fortuitous. Whereas the primitive narrative expands upon a situation, these true narratives expand upon an idea. And whereas the focussed chain has a character who remains at the center of the various chained incidents, these also have a goal or direction that also remains constant. Tracy's story of Johnny Hong Kong, quoted above, is a good example, one of the best in this whole collection. Combined with it in scoring for this category were a number of stories which have progressed beyond the focussed adventure chain in that they maintain a consistent direction to their action, a direction which often but not necessarily climaxes at the end, but whose focus is arguably still concrete or situational. Thus Kirk's story below is focussed around the 'silly dog' who runs away, gets in trouble, and learns his lesson:

> Once there was a doggy and a little boy. This doggy was pretty silly. He ran away from the little boy and went farther and farther away. The little boy caught the doggy. He reached out and caught the little doggy with his hands. He put the doggy down. The doggy ran away again. He came near a railroad track. He stepped on it and the train ran over him. But he was still alive. This was a big white bull dog and he wanted to go back to his home. When the little boy went back home he found the doggy. He was happy. His doggy was still alive.
>
> --Kirk W., 4;10 (p. 83)

> About a cat and a mouse. Once upon a time there was a mouse who lived in a house and a cat came and he lived in the woods next to the house. The cat tried to eat the mouse but he couldn't because the mouse was in the tree and the mouse came out but the cat was trying to go in and eat the mouse but he bumped into the tree that the mouse been hiding in. Then the mouse got out of the tree and ran into the house. The mouse been safed because the people locked the door so that the mouse was safe from the cat ever after.
>
> --Kent W., 4;11 (p. 82)

It seems right to treat such stories as having progressed beyond the concrete, pseudoconceptual level of the adventure narrative, though with a somewhat older group of children it might also be right to attempt to untangle stories such as this from others in which the central theme is itself more abstract. In any event, as scored here the frequency of these stories increased sharply with age, from none at age two to 20 percent of the sample at age five--still of course only a small percentage, but one that represents a major shift in the mode of organization.

Other Attributes of the Plot Structures

As another way to describe the differences among the various plot structures, table 14 summarizes the characteristics of each on a number of other measures. It should be remembered that these measures are not independent, since some of the attributes in the left-hand column of the table were used to help define the various plot structures listed across the top. Second, the chi-squares for the use of a climax and of links among incidents are only indications of general directions, since the frequencies in some cells are very low. The table nonetheless suggests that the two analyses, one analytic and the other relatively global, are--as one would hope--getting at related points.

The analysis summarized at the bottom of table 14 is of more direct interest to our initial argument that in analysing the conceptual organization of these stories, we would be looking at ways in which the children manage complexity. So far we have demonstrated only that the structurally more mature forms, using Vygotsky's (1962) findings about developmental sequence, are more prevalent at the older ages and, simultaneously, that the stories told by older subjects are more complex.

Table 14: Characteristics of Plot Structures in Children's Stories

	Heaps (n=10)	Sequences (n=27)	Primitive Narratives (n=17)	Unfocussed Chains (n=10)	Focussed Chains (n=48)	Narratives (n=8)	df	Chi-square[1]
	Percent of Plot Structures Showing Listed Characteristic							
1. One consistent character	60.0%	92.6%	94.1%	30.0%	97.9%	100.0%	1	9.26***
2. Similar action throughout	20.0	51.9	70.6	50.0	35.4	37.5	1	2.43
3. Single incident	50.0	7.4	47.1	10.0	10.4	12.5	1	3.17
4. Constant setting	60.0	48.1	64.7	50.0	29.2	50.0	1	5.28*
5. Thematic center	10.0	0.0	0.0	0.0	4.2	25.0	1	nsd[2]
6. Causal links: some	20.0	18.5	29.4	70.0	37.5	12.5		
clear	10.0	0.0	52.9	30.0	52.1	87.5	10	69.88***
7. Climax of action: natural	10.0	14.8	17.6	10.0	22.9	12.5		
thematic	0.0	14.8	11.8	20.0	20.8	75.0	10	21.98*
8. High use of fantasy[3]	0.0	37.0	5.9	70.0	45.8	87.5	5	27.12***
9. High use of formal markers	10.0	48.1	23.5	70.0	64.6	100.0	5	24.46***
	Averages							Covariance on Age F-Statistic (df=5,113)[4]
10. Number of words	57.5	60.6	55.6	154.5	135.6	255.8		2.68*
11. Number of T-units	8.0	9.2	7.8	20.5	17.6	28.6		1.98
12. Number of characters	4.3	2.5	3.0	6.7	3.6	5.2		4.47***
13. Number of incidents	2.9	4.9	2.9	5.2	5.3	6.3		1.05
14. Words per T-unit	7.0	6.2	7.1	7.3	7.4	8.9		1.37

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[1] For variables 1 to 5, the two most complex plot structures are contrasted with the four simpler types; for the remainder, the six plot structures are considered separately.

[2] Using Fisher's Exact Test (Siegel, 1956).

[3] This variable is discussed in chapter VI.

[4] A multivariate analysis of covariance on variables 10 through 14 yielded two significant roots: $F(25,406.4) = 2.64$, $p < .001$; and $F(16,364.5) = 2.19$, $p < .005$. Without covariance, all variables show significant differences between the plot structures.

*$p < .05$

**$p < .01$

***$p < .005$

We have not shown that the relationship between the two developments is more than a fortuitous by-product of a mutual relationship with age. To explore this further, a multivariate analysis of covariance was carried out on differences in complexity among the major plot forms, after controlling for age. This analysis asks in effect if age alone is enough to explain the changes in the other variables, or if plot-structure as well as age affects the complexity of the stories. The five interval scales measuring complexity (measures 10 through 14 in table 14) were used in this analysis. The overall test of differences in complexity yielded two significant dimensions of difference; the first and largest of these is due largely to differences in the number of characters; the second is a general effect to which all measures except number of incidents contribute. Univariate effects were significant for number of words and number of characters, and nearly so for number of T-units. (In an analysis of variance without adjusting for the effect of age, all of these measures show highly significant differences between the plot structures.)

What these results suggest is that there are real differences in the complexity of the stories resulting from the different methods of structuring the plots, differences which remain even after allowing for the fact that certain plot structures are used mostly by the older children in this sample. This is a much more interesting finding than that of age changes in complexity and in plot structure separately considered.

Scoring Difficulties

Some of the difficulties in scoring these categories should be noted here. Many of the stories do not fit neatly into one or another category, but show different underlying patterns in different sections. Judgments were made globally, on the basis of the predominant mode of organization in each. Though rater consistency was reasonably high (cf. Appendix II), it could have been improved by providing an additional category for unclassifiable stories, or by allowing transitional categorizations for stories which show clear shifts. It is also possible that, retrospectively, the category definitions could be sharpened further, in particular by specifying more precisely the nature of the defining attributes for each organizational structure. Primitive narrative, for example, might be limited to stories in which character and setting are both held constant, as table 14 suggests they were for the majority but not the totality of stories in the present analysis. A multiple discriminant function analysis undertaken to further explore the categories in the present study shows that the worst overlap occurs between sequences and focussed chains, and between focussed chains and primitive narrative; these statistical results correspond to the general impressions of the raters in scoring the stories.[3] Any further analyses along the lines of this series should attempt to formulate the defining differences between these pairs more precisely.

Plot Structure and Task Complexity

This succession of modes of organizing plot forms bears a complex relationship to the overall complexity of the comprehension task facing the child. Looking only at the plot-forms themselves, each stage is more complex than the previous one, and is correspondingly more difficult to master. (Hence the fact that they are not all immediately available to the two year old.) The heap, like all forms of syncretistic thought, creates the least complex task: the child has no links among the parts of his story to control at all, taking each singly as it comes to attention within his visual or perceptual field. The sequence is more complex in

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[3] The discriminant function analysis used the 14 variables in table 14. Of the 120 stories, 68.3 percent were correctly classified on the basis of posterior probabilities for group membership. All possible pairs of groups were significantly different from one another. The overall F for discrimination among the 6 groups with the 14 variables was also highly significant ($F = 4.56$, $df=70, 484.94$, $p<.001$). The analysis was carried out using program 07M in the BMD series.

that now the child does keep a constant core or center to which other elements are linked on the basis of similarity. This added structural complexity, however, simultaneously simplifies the task of organizing the various elements of the story, by providing a model or set of expectations about the form that each segment of the story must take. In Larry W.'s story quoted above, for example, everything that comes in is going to be eaten, and that is all there is to it! Moving next to the primitive narrative, the child now has to cope with the problem of complementarity rather than similarity, but in so doing he again simplifies the overall problem of controlling the elements. For in this version (and for the first time), there is a sense in which the parts which belong to the story are entailed within the initial situation. Whereas Larry W's story structure gives him no basis for predicting what will be eaten, Trudy B.'s comments about Sugar Bear are all based in expectations, systems of implications of previous experience, centering around the bear; she would have a much better chance of reconstructing the story if asked to tell it again than would be possible with the less-structured plot-forms.

The move from primitive narrative built around centering to chain narrative seems to be one of a greater order of magnitude than the previous shifts: rather than a single attribute parallel (in the sequences) or complementary (in the primitive narratives) linking each new element to the organizing core, in the chain the child becomes aware of the multitude of attributes which define each element which he brings into the story. This breaks the syncretistic tendency to focus on a single attribute and lift it out of context, and replaces it with a fuller awareness of the possibilities in a given situation. This added structural complexity, however, once again helps to simplify the task of bringing ever-larger numbers of elements into the story: the amount of amplification that can take place around any one center is obviously limited in a way that amplification around the new sets of attributes brought in with each new element is not. The chain maintains the advantage of the primitive narrative in allowing events to evolve out of one another, on the basis of expectations or implications arising from the attribute focussed upon; by allowing the central set of attributes to shift it simultaneously broadens (almost indefinitely) the possible scope.

The unfocussed chain narrative presents the child with a new problem, analogous to that faced earlier with the sequence: because the structure lacks a focus or center, there is really no control over which attribute will be elaborated; this means that, in Piaget's sense, the processes involved are not reversible. The next stage, the focussed or adventure chain, improves upon that by giving one of the attributes, usually a character, a central role; by holding this constant, the story begins to be 'fixed' again, to be nearly reconstructable. Finally when the story moves to the last stage dealt with here, the true narrative, it has in a sense become reversible: the ending is entailed in the beginning and, conversely, the beginning is entailed in the end. At this stage the elements are linked by both centering and chaining and are thus more fully controlled. Both teller and listener are likely to know more about what comes next than with any of the earlier forms.[4]

4. Further Development of Poetic Form

The simple sorts of narratives which represent the most mature forms in this collection ~~of stories are~~ not the final stage of development in literary structure, but the patterns which are traced here are arguably the ones out of which even more complex structures will be built. The two basic mechanisms are 'chaining' and 'centering', both of which can be thought of in terms of the attributes linking one element in a discourse to another. With chaining, elements are joined on the basis of an attribute which links them either in similarity or complementarity one to another. In the stories the linking attributes usually involved time sequence and causality, but in other spectator-role forms we might expect to find other sorts of chains--of images, say, or ideas or even sounds. Centering, on the other hand, involves holding one or more of the attributes (character, theme, setting) constant throughout the discourse; this gives unity or focus, insuring that there will be an overall form as well as links between the elements taken in pairs.

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[4] Here of course we are beyond the present data-base and at a point where experimental confirmation of these claims is needed. They have the advantage of being directly testable, however, in that the sorts of plot structure which should improve the reader's ability to recreate (or remember) a story have been specified in some detail.

Once a narrative has the sort of structure which we have called 'true narrative', it has reached a point where it can itself become an element to be bound, by chaining or centering, within a structure that is more complex still. It can become an episode or incident, in other words, within a larger whole. This process is already evident in a few of the stories in this collection. Consider, for example, Frances B.'s (5;0) contribution:

> Once upon a time there is a rabbit up a tree. And a boy got a fishing net. "May I stay for dinner for a few nights because I have no place to live? When I go away, I'm going to George Washington."
>
> He put the fishing net back in the rabbit's hole when he had dinner. There was a boy walking over to his house; he was sad. Here comes the rabbit to let the poor sad boy down the ladder into his house. "And after I visit you I am going back to my house in New York," the boy said this.
>
> In the woods one girl was walking; she was very happy. She wanted a place to live. Her mother and her baby had died so she wanted a place to live. So she and her daddy packed up her things. They went to live with the boy and the rabbit and they were happy all together in the old little house.
>
> And they all turned to be rabbits because they didn't eat regular food; they ate carrots and the mother rabbit read stories to them all. And the mother rabbit let the girl and daddy down the ladder; the suitcase was heavy. The mother rabbit showed them a room and said they could stay forever. (pp. 138-39)

The structure here is quite simple, but it has begun to break up into two separate incidents each with its own individual focus (one on the boy with no place to go, the other on the girl whose mother has died), and an overall 'center' in the problem of loss and separation. In adult literature, the way in which these processes are combined defines the amount of poetic form with which we are willing to credit a work. A diary or memoir, for example, which we have placed near the expressive in chapter II, usually takes its structure from simple sequence; here the narrator is the attribute which remains constant throughout, but beyond this there is little overall unity. The relationship from one episode to another tends to be a matter of time sequence, even though some of the episodes may be long lasting and highly structured in themselves. In an adventure story--James Bond, say--there is somewhat more form, with the character still being held constant but the incidents also being closely chained together, each motivating the next. The extent to which there is any further centering in such stories varies greatly; in a Sherlock Holmes adventure there is a strong forward movement, progress toward the goal of 'solving the mystery'; in a James Bond book there is much less of this, so that incidents deleted or rearranged do not much effect the overall unity of the story.

Finally when we move to fully poetic forms, both chaining and centering become all-pervasive. In a play such as King Lear, for example, it matters little whether the element we choose for analysis is the word, the line, the incident, the scene, the act, the character, or the image (or 'symbol'); at each level such elements are bound in complex relationships one to another, and have an overall center or point as well. Cordelia's character, for example, emerges for us out of her separate actions throughout the play; these actions have one 'center' which involves the type of character she is. At the same time, this 'type' is itself part of a complementary set of possible types represented by Cordelia and her sisters. It is precisely because the full set of centerings and chainings in a fully developed poetic form are so complex that the task of the literary critic is so difficult, the rewards of the reader so rich. And it is also because these relationships are so complex, with each element simultaneously part of so many different chains and centers organized at so many different levels in the structural hierarchy, that the 'full response' to a poetic form cannot be a transactional, analytic one but must be the complex, assimilative, personal one that comes only in the spectator role.

5. Summary

Analysis of the stories told by children has carried us a considerable way toward understanding poetic form, both in its developmental and its later, more sophisticated stages. From the perspective that has emerged here, there is an interplay between form and content in which increasingly complex material is mastered through the expedient of organizing it more thoroughly; put another way, as the degrees of freedom in the situation increase, the amount of poetic form needed to control them increases too. By approaching the plots of the children's stories as conceptual structures or modes of organization, it has been possible to recognize a series of stages parallel to those which Vygotsky (1962) has found for concept development in general. From least to most complex, the six major stages of narrative form found here are heaps, sequences, primitive narratives, unfocussed chains, focussed chains, and true narratives. Each in turn represents a progressively more complex combination of two basic structuring principles, centering and chaining. By recognizing that these can apply recursively to ever-larger units of discourse, they can be seen to underlie adult uses of language in the poetic mode as well as the children's uses from which they were derived.

CHAPTER VI

FANTASY AND DISTANCING IN CHILDREN'S STORIES

1. Introduction

If poetic form reflects structure or organization imposed upon experience, the experiences which are dealt with also show some interesting developmental shifts in the amount of fantasy or distancing which they embody. Fantasy as it will be treated here is primarily an aspect of the content of the work, but like form it is a resource at the disposal of the story-teller and can be used or not used as he sees fit. Developmental changes in these resources and in the contexts in which they are used will be the topic investigated in this chapter.

2. The Widening Realm of the Possible

Witches and fairies, Santa Claus and Cinderella--a child's familiarity with such characters can be seen as a widening of his view of the world, an extension of the boundaries away from the self toward an unknown horizon. From this point of view, fantasy is not so much the 'fantastical' as it is part of a continuum that begins in the world of immediate experience, passes outward toward distant lands, and outward again into purely imaginative realms. Each step along this continuum increases the complexity of the child's world, admitting new elements to it; we might expect to find that these elements are only gradually accepted and mastered.

Carol White, for example, begins with an interest only in things she already knows; at the age of two years and three months, her reading time consists of pointing out, "That's a boy. That's a girl. That's a mummy" (White, 1954; p. 5). She can approach the unfamiliar only through the context of the familiar, and at two the familiar is still a very restricted world indeed. White recounts Carol's problems at 2;5 with stories of 'lions':

> Carol was more than puzzled by the lions. "Clothes-lions" is her usual pronunciation, and she looked for pegs and washing in the picture. Kangaroos baffled her too, but gradually, because these exotic animals were embedded among more familiar things, she came to accept them and give them their names. (p. 11)

There is a very close interaction between Carol's world of stories and that of her life, each set of experiences helping her to understand the other. With the 'clothes-lions', Carol uses her everyday world to try to make sense of the book she is reading; a few weeks later there is a striking illustration of the opposite sort of movement. This occurs when Carol has her first venture out of the house at night, an experience which terrifies her until she remembers the dark night in one of her books; then all is well. The story gives her a pattern of expectations which allows her to make sense of the darkness she finds.

The sort of familiarity which a child demands in a story is often a social one, a doing of things which the child expects to be done. Thus Peter Rabbit is a manageable story for Carol at 2;8 because "They all lived together with their mother at the root of a very big fir tree" (p. 26). Gradually as Carol's knowledge of the world increases, she is able to understand and enjoy stories set more distantly from her own experience. "The unfamiliar is not brushed aside if she has a single clue about it," White comments at 4;2; "She needs some bridgeway, however, some foothold" (p. 134). Or again, some five weeks later:

> The background of the story is foreign and strange, but the four-year-old seems excited by things because they are strange. In contrast to the two-year-old who is most interested in what is most familiar, four years responds to what is less familiar. One can read a story about remote places now to Carol as long as the pictures make the reality quite clear. The illustrations must confirm the text; the two together, words and pictures, can take the child far beyond her immediate experience. (p. 139)

Carol, then, has matured greatly in the extent to which the story can be about worlds beyond the one in which she is directly immersed. To explore the nature of this change in the scope of the experience represented in stories, those in the Pitcher and Prelinger (1963) collection were scored for fantasy in the 3 related yet still separate dimensions of character, action, and setting. In each case, the scale ranged from situations of a type a child would likely have experienced to those psychologically very distant. At one end of the scale for characters, for example, were types representative of the family situation, stories about mothers and fathers, babies, grandmas, and siblings; at the other end, purely fictional characters such as Santa Claus, witches, and space monsters. (Fuller definitions of the 3 scales are included in appendix II.) A summed score was also computed giving a total for each subject for fantasy in character, action, and setting combined.[1]

The results from these analyses indicate that at two, the stories which children tell remain very close to the world of the child's immediate experience. Two stories from Bernice, one at 2;9 and the other at 2;11, are typical; both are set in and near the home, with very ordinary sorts of activities. The second of the pair, however, shows how this very simple pattern is sometimes complicated by extending the human world to one or another set of animal characters:

> The baby cried. The mommy picked it up. The mommy put it back to bed. The baby looked at the little flowers. She took a string and fussed with it. She had slippers on. She got sick. The mommy had to feed her. She got a toy horse. An airplane came around the sky. Her daddy came. She ate her supper. She went to sleep.
>
> --Bernice W.; 2;9

> Once there was an elephant. The mommy fixed his breakfast. Then he played with his toys. Then he drank his milk. The doggie came into his house. And I had to chase him away. The milkman came. The doggie jumped on the milkman. Then the milkman "sweetied" the doggie on his back. Then the doggie went away.
>
> --Bernice W., 2;11

At two, 97 percent of the stories have, like these, settings which are 'realistic' in the sense of being tied to the world the child would know--almost always the home and its immediate surround (table 15). Some 77 percent depict actions that are appropriate within this world, and in

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[1] It is quite common for the stories to show differing levels of fantasy in these three areas. Thus Cramer's V between fantasy in character and action = .404, between fantasy in character and setting = .440, and between fantasy in action and setting = .649. (V ranges from 1.0 when two variables are identical, to 0.0 when there is no relationship at all.)

Table 15: Distancing in Children's Stories

Measure of Distancing		Percent of Children: Age 2 (n=30)	Age 3 (n=30)	Age 4 (n=30)	Age 5 (n=30)	Boys (n=60)	Girls (n=60)	Age Contrasts: df	Age Contrasts: Chi-square	Sex Contrasts: df	Sex Contrasts: Chi-square
1. Characters:	realistic	70.0%	36.7%	60.0%	36.7%	48.3%	53.3%	3	7.16	1	0.97
	mixed	3.3	20.5	3.3	10.0	11.7	6.7	[fantasy vs. realistic]			
	fantasy	26.7	43.3	36.7	53.3	40.0	40.0				
2. Self excluded		90.0	80.0	90.0	96.3	93.3	85.0	1	1.39[1]	1	1.38
3. Stock characters		0.0	16.7	13.3	33.3	18.3	13.3	3	12.69***	1	0.25
4. Action:	realistic	76.7	30.0	26.7	6.7	26.7	43.3	6	40.06***	2	9.89**
	mixed	16.7	53.3	60.0	53.3	43.3	48.3				
	fantasy	6.7	16.7	13.3	40.0	30.0	8.3				
5. Setting:	realistic	96.7	56.7	76.7	33.3	53.3	78.3	6	30.44***	2	8.69**
	mixed	0.0	16.7	13.3	23.3	16.7	10.0				
	fantasy	3.3	26.7	10.0	43.3	30.0	11.7				
6. Light tone		17.2	58.6	66.7	63.3	58.6	45.0	3	18.66***	1	1.68
7. Fantasy total score:	mean[2]	.93	2.63	1.97	3.60	2.72	1.85		$p<.001$		$p<.008$

[1] Contrasting scores for the two oldest and the two youngest age groups.

[2] Based on variables 1, 4, and 5. Probabilities from two factor (age x sex) analysis of variance. F for linear age effects = 25.51, df=1, 112; F for quadratic age effects = 0.01, df=1, 112; F for cubic age effects = 11.419, df=1, 112; F for sex = 7.34, df=1, 112; F for interactions = 1.17, df=3, 112.

*$p<.05$
**$p<.01$
***$p<.005$

70 percent the actions are carried out by similarly realistic characters. Ten percent of the children involve themselves directly in the action, as Bernice does in the second of hers. (This involvement is another indication of how completely these animal characters have been assimilated to her world.)

By five, the world explored in stories has shifted away from this personal center. Only 7 percent remain concerned with actions the child is likely to have experienced; one-third are set in his immediate world; and 37 percent involve realistic characters. Looking at the figures for all four ages, a gradual shift from completely realistic to intermediately distanced and finally toward the pure fantasy categories is evident (table 15). Age changes in all three of these fantasy scores, and for the three taken as a set, are all highly significant. There is also a significant tendency for the girls to tell more realistic stories than the boys, a finding which may result from an interaction between our definition of fantasy and different cultural roles for boys and girls: we have defined fantasy as the exploration of new worlds distant from the home, but it is with home and family that the girl is expected to be concerned. If the older girls are exploring this world in a significantly deeper, more venturesome way than their younger counterparts, our definitions are not designed to reflect this. The tendency of the narrator to involve himself directly in the story also falls with age, but here the frequencies are low at all ages and the overall differences are not significant. (The erratic pattern for this variable, rising from two to three and then falling again, is also evident in the full sample of 360 stories.)

The following story by Kent W. (5;2) is typical of one sort of highly distanced story told by the five year olds; that by Erik M. (5;6) is typical of another sort:

> This is about a mosisaur [type of dinosaur that lives in the sea]. And the mosisaur went swimming one day and he saw a dinosaur and then he go along and tried to catch the dinosaur and he got so fast that he bumped into a prehinosaur and when he bumped into him they got into a fight. And then when the prehinosaur was almost knocked

out the dinosaur came and the mosisaur came and the dinosaur was on the mosisaur's side. The mosisaur won except one prehinosaur was left and that was the king. Then they had a big fight and they just began to surrender.

--Kent W., 5;2 (p. 126)

Once there was a car. It was driving by itself. A witch got up in the back of the car. Then a cat jumped in the window. Then a bear jumped in. Then the car crashed. Then the witch was killed. The cat got a doctor. And the doctor said, "Whoo-that's not a pretty witch, I don't like witches." Then a girl came and kissed the witch and the witch, her magic wand touched the girl and she fainted, and they never got her alive again.

And then an elephant came and puked the witch and whizzed her around with his trunk. And then children took the witch home and put 189 knives in her stomach and she was all dead.

--Erik M., 5;6 (p. 123)

Pitcher and Prelinger (1963), and later Ames (1966) scored the stories in their collections for two variables which are closely related to our set of distancing variables. One of these they called 'space' or 'expansion', the other 'realism'. Space was very similar to our setting variable, except that the earlier measure was defined more strictly in geographical terms, whereas in the current study the relationship of the family group to the geographic positioning was considered. Thus for Pitcher and Prelinger's 'space', a family transposed to Africa would have scored in the same category as a group of explorers in Africa, while for our 'setting' the second of these would have been rated as more fully distanced. Conversely, conventional story settings such as cowboys and Indians (without a center around a family group) were here rated as more fully distanced in 'setting', but are in an intermediate category on the 'space' variable. 'Realism' was a global rating that considered both characters and actions; it represents a cross between our scores for distancing in actions and for total fantasy, with scale-points somewhat differently defined than either. The major result of the differences introduced for the present study is to create a more even distribution of scores: in the earlier studies very few stories at any age fell into the most fully distanced category on either of their scales. Though comparisons were somewhat attenuated by this constriction of range, both Pitcher and Prelinger (1963) and Ames (1966) reached the same general conclusion that we have done: there is a gradual expansion in the scope of the world dealt with in stories, and a gradual shift toward more fantasy in the action as a whole. Both studies also found that boys tend to venture further afield in their stories, and girls to remain closer to home.

3. Consistency in Choice of Options in Telling Stories

The idea that poetic form and fantasy or distancing are resources at the disposal of the story-teller is worth exploring further. It relates directly to the model developed in chapter II, which postulated that language in the spectator role develops through the addition of new possibilities along side of the older expressive forms. We can approach this in two ways with our sample, one making use of the second story told by the two, three, and four year olds, the other looking at the interaction between the 'content' of the story and the way in which that content is handled.

The approach through the second story is the simplest to present, and will be dealt with first. The analysis is based on the argument that if each of the older subjects has more options available _to him_, then each child in the older group should be somewhat less likely to take up the same options in telling his second story that he did in telling the first. The _within_ subject variation should be greater for the older than for the younger children. (This is a very different argument than the usual developmental one that an older group will show more _between_ subject variation because of a wider range of achievement and maturation.) Put another way, we are predicting that the 'test-retest' reliability for scores related to the formal characteristics of stories should be lower for the older children.

Table 16 summarizes a number of analyses designed to approach this hypothesis. The top section of the table reports nonparametric analyses

Table 16: Consistency Between First and Second Stories Told by Two, Three, and Four Year Olds

Element	Consistency Coefficient[1]		Percent Receiving Same Score on Both		Chi-square[3] (df=1)
	Younger (n=43)	Older[2] (n=47)	Younger (n=43)	Older (n=47)	
Formal beginning	.208	.111	62.8%	57.5%	0.09
Formal ending	.024	.250	95.3	72.3	6.98***
Tense	.415	.161	74.4	78.8	0.05
Causal links	.202	.114	37.3	32.0	0.09
Climax of action	.213	.162	60.5	40.4	2.85*
Plot structure	.390	.326	44.2	34.0	0.59
Dialogue	.099	.460	81.4	74.5	0.29
Fantasy: characters	.175	.164	59.4	56.4	0.00
Fantasy: actions	.400	.173	69.7	46.8	3.96*
Fantasy: setting	.238	.105	76.8	58.7	2.53
Tone	.677	.009	85.8	54.4	7.59***
			Variance Ratios (df=29,29)		
			Age 4 / Age 2	Age 3 / Age 2	Age 4 / Age 3
Number of characters	.247	.081	4.94***	6.02***	<1.00
Number of incidents	.351	.293	1.29	<1.00	1.78
Number of words	.612	.511	12.56***	1.96*	6.39***
Number of T-units	.469	.522	3.31***	2.02*	1.64
Words per T-unit	.495	.356	2.99***	1.79	1.66

[1] Cramer's V for the categorical variables in the top part of the table, Pearson's r for the variables in the bottom part.

[2] Younger = ages 2;0 to 3;5, older = ages 3;6 to 4;11.

[3] Test of age difference in percent receiving same score on both stories.

*p ≤ .05, one-tailed
**p < .01
***p < .005

of categorical measures, the bottom section parametric analyses of interval scales. For the categorical scores, Cramer's V is a nonparametric measure of association that ranges from 0 to 1. Under our hypothesis, this should be lower for the older than for the younger children, and it is lower for 9 of the 13 comparisons. The most striking feature of these coefficients, however, is their generally low values for both age groups. A similar pattern is evident for the 5 interval scales, for which the usual product-moment correlation coefficients have been calculated: 4 of the 5 are lower for the older children.

Differences in the extent to which children make use of the options available to them are difficult to measure, but some attempt has been made to do this by comparing the percentage having exactly the same score on both stories in the two age groups. Ten of the 11 comparisons are in the predicted direction, but only 4 are significant at the .05 level or better, using one-tailed tests. For the interval scales, the variances of the change-scores at each age were compared, with the hypothesis that the variance should be greater for the older subjects than for the younger. The rationale for this test is that if the older subjects are selecting among a greater range of viable options, rather than simply demonstrating error variance about their own typical performance, then the range of differences between subjects should also be greater; some will pick options quite close to their initial choice, and some will pick options quite different. If the younger subjects have fewer options open to each individual, then the 'quite different' options will be less different than in the case of the older age group, and the variation of the change scores will be correspondingly smaller. The ratios of variances between any two ages can be used to test the hypothesis; these are also summarized in table 16. All but 2 are in the predicted direction, and 8 of the 15 are significant at the .05 level or better.

Considerable caution is needed in considering the results that have been reported in this section. Though the data have behaved in general as predicted, they are not of a sort to allow a precise test of the hypothesis. On the one hand they take no account of the correlations among the many variables, and on the other, there are other plausible interpretations of the same results. The higher variance of the change scores for the older children, for example, could be explained as an artifact caused by a greater discrepancy between their 'typical' performance and the shorter, less complex story that might result from rushing through the task with little interest or motivation. Still the data in table 16 are suggestive enough to warrant gathering around them such other evidence as we can muster.

4. The Interaction of Form and Content

The analyses reported so far tell us nothing about the motivations for choosing among the various options which children have in telling stories. Are their choices made at random? or can they be related to the task at hand? We can approach this issue by recognizing that many of the resources and options which have been discussed could be used as a means of achieving 'psychical distance' in Bullough's (1912) classic sense. Formal story markers (openings, closings, and past tense) help to set the story-mode up as something different than, and thus apart from, the main business of life; the use of fantasy carries it away from the world of immediate experience; a light tone marks the story as a joke or 'nonsense'; and omitting the self takes the story further from the world of immediate concerns. Bullough in his discussion focussed upon the phenomenon of distancing as a means by which the reader or writer could reduce the threat posed by the material; to take up a problem at a suitable 'distance' from one's own life is to lesson one's direct involvement in and commitment to the outcome. This provides us with a way to formulate our questions about the use of stories more precisely: we will ask whether (and predict that) children use the resources of story-form to more fully distance threatening themes and problems.

Defining the Degree of Threat

Defining the degree of threat in stories such as these is itself difficult. We know nothing about the individual children, and nothing relevant about the immediate context in which the stories were told. Two quite different theoretical frames-of-reference were used here; one attempted to measure the 'strength of theme', the other the 'social acceptability' of the actions depicted. The first of these sought to assess the importance of the subject matter to the child. The basic distinction sought was between stories treating matters of real concern and those in which there is less inherent threat. The strongest themes were considered to be those dealing with taboo subjects: toilet training, attacks on parents, the death of a child or a family member, abandonment, and birth myths were the sort of subjects classified here. Larry W.'s story (cited earlier) in which his character 'ate some dog dirty' is ~~a~~ good example; so is Olive's:

> A little fishie what got killed. His daddy came running. His daddy spanked him. He was crying. Then he went in the bed. Then him banged the daddy. Then she said, "Get out you Daddy," because he spanked the little baby. He was so sad. Then he got some soda out of the kitchen. Then he drinked it all up.
>
> --Olive B., 3;2

Stories which seem to simply accept the conventions and expectations of the world as the child has come to know it were classified as having weak themes. Included here were tales of over-indulgence, spanking and chastisement in the world of toys and stuffed animals, Christmas lists, making friends, and so on.[2] Isaac and Tess's stories, in the following set, illustrate these sorts of themes. Notice, in Tess's especially, that having what is being called a 'weak theme' does not mean that the story is a sort of 'dry run'; it is, however, less threatening, closer to the mode of friendly, quiet conversation than to that of defending or challenging the world as it is:

> She has her lunch and her daddy's gonna teach her how to swim and they ate on the beach. A picnic because it wasn't in the house. They ate sandwiches, hamburger, and drank each day outside, because they were going swimming each day and they didn't want to waste any time. They didn't eat, because they were getting kind of fat, and they wanted to get thin again.
>
> --Tess B., 4;2 (p. 110)

> Once there was a horse. He galloped. The mommy, daddy, and baby horse, they played. They went home. And then it was night. And they went to sleep. In the morning they got up.
>
> --Isaac S., 3;6 (p. 48)

---

[2] Thematic strength was in fact scored on a five-point scale, collapsed into 'strong', 'weak', and 'adventure' themes for the main analyses. The full set of categories is presented in appendix II.

In categorizing the stories on the basis of thematic strength, a third category emerged which seems quite different. This includes stories with much action but no evident thematic content: cowboys and Indians, hunting stories, animals fighting. All are standard story formats in which death and other normally strong themes occur without their usual overtones. Kip's Davy Crockett story cited earlier is the archetype of this form; Barry's pirates illustrate it well too:

> Once there was a boat; pirates were on it. There was a boat with bad pirates on it. Then they had an old cannon and they shot the boat with a bullet and the boat sank. Then the pirates went to sleep in their house.
>
> --Barry M., 3;11 (p. 40)

These were classified as 'adventure' stories and looked at separately. Their distinguishing characteristic seems to be a lack of thematic content rather than the degree to which the theme poses a direct threat to the child's world. This interpretation is problematic, however, and will have to be reconsidered after presenting some of the results.

The second approach to measuring the threat in these stories classified them on the basis of the social acceptability of the actions depicted. This is concerned with the extent to which the story ventures beyond the realm of conventionally acceptable behavior, becoming a way of testing out otherwise proscribed patterns of action. (In scoring, no attention was paid to the result of the action; it was the status of the actions themselves which mattered, not whether they were punished or rewarded.) Four categories were used: 1) completely acceptable descriptions of everyday life or of smoothly running fantasy worlds that do not challenge convention; 2) acceptable behavior, but with characters hurt or sick through no fault of their own; 3) conventionally sanctioned modes of violence and disorder acceptable within their usual context (shooting bad guys, hunting, fighting among cowboys and Indians); and 4) socially unacceptable actions, including deliberate wrong-doing, lying, and defiance of parents. The scores resulting from this analysis are clearly related to strength of theme but are not identical with it. In particular, the conceptually difficult category of 'adventure' stories disappears. The action in these is for the most part characterized as 'conventional violence', but there is some overlap with each of the other status-of-action categories as well. Adventure themes increase with age, from about 7 percent of the sample at two to over one-third at five; they also tend to be told more often by the boys than by the girls in this sample. Within the action-status categories, there is a parallel shift in emphasis from stories which explore 'natural disasters' such as sickness and injury, toward the 'conventional violence' of the adventure stories. (These data are summarized in more detail in supplementary table 2, appendix I.)

These two variables have a somewhat different theoretical status for us. The measure of thematic strength is most directly related to our hypothesis that distancing is related to the degree of involvement or threat to the subject; it is also, however, a measure whose validity can only be asserted and not demonstrated with this data. The exercise is essentially one in literary criticism, where consensus is possible but proof in an analytic sense is not. Status of action, on the other hand, is more objective in that it makes no assertion about the involvement of the individual story-teller. Its classification is against cultural norms, again not objective and explicit, but which could be validated. We can set up a criterion of the "Is it proper for X to do that" variety in a way that we cannot ask, "Was Y, in telling a story about X doing that, dealing with a problem that was personally important to him?"[3] (It is of course possible to argue from a psychoanalytic perspective that the last question is meaningless, that all fantasy products result from unconscious wishes and desires, and thus are necessarily 'personally important' to the teller; we will have to return to this objection later.)

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[3] Inter-rater reliability was very high for both variables, however; cf. appendix II.

Distancing and the Degree of Threat

With these preliminaries, we can plunge into the data themselves. We should not be surprised to find that older and younger children have somewhat different ways of distancing threatening stories, so the effects will be presented separately for the older (ages four and five) and younger (ages two and three) children, and interactions tested.

If we begin with strength of theme, the contrast of immediate interest is between stories with 'weak' and 'strong' themes. If the child is using his control of fantasy and story-form to achieve 'psychical distancing' of threatening topics, the stories with strong themes should be more thoroughly distanced. Here we find only a few significant relationships (table 17). In particular, children tend to leave

Table 17: Relationships Between Distancing and Strength of Theme

	Percent of Stories			Tests of Effects[1]	
Theme:	Strong	Weak	Adventure	Weak vs. Strong	Interaction Age by Theme
N for younger:	29	23	8		
N for older:	20	26	14	Chi-square (df=1)	Z
Realistic characters					
Ages 2;0-3;11	62.1%	60.9%	0.0%	0.04	0.19
Ages 4;0-5;11	55.0	57.7	21.4	0.01	
Realistic setting					
Ages 2;0-3;11	79.3	95.7	12.5	1.71	0.36
Ages 4;0-5;11	55.0	73.1	21.4	0.93	
Self excluded					
Ages 2;0-3;11	93.1	69.6	100.0	3.46*	3.04***
Ages 4;0-5;11	85.0	100.0	92.9	2.07	
Light tone[2]					
Ages 2;0-3;11	29.6	26.1	100.0	0.00	0.30
Ages 4;0-5;11	60.0	50.0	100.0	0.14	
Consistent past tense					
Ages 2;0-3;11	86.2	52.2	75.0	5.68**	1.60
Ages 4;0-5;11	95.0	92.3	78.6	0.00	
Formal beginning					
Ages 2;0-3;11	34.5	34.8	50.0	0.07	0.29
Ages 4;0-5;11	85.0	80.8	78.6	0.00	
Formal closing					
Ages 2;0-3;11	0.0	13.0	12.5	1.97	1.57
Ages 4;0-5;11	35.0	30.8	21.4	0.00	

[1] One-tailed for main effects, two-tailed for interactions; on the method of testing interactions, cf. appendix II.

[2] Omits 2 younger children with indeterminate tone.

*p <.05
**p <.01
***p <.005

themselves out of threatening stories and to place them more consistently in the past (especially at the younger ages); these can be seen as further aspects of distancing in character and setting, respectively, though the differences in these more general categories are not significant. (The proportion of 'realistic' actions for the different types of themes and actions is not tested because this category is highly confoundod: certain sorts of actions are classified by definition as strong theme or unacceptable actions, and also by definition as fantasy.)

Neither formal openings nor formal closings show any relationship to the thematic strength of the material. Apparently these reflect expectations about what a story--any story--is like, and are not varied in response to these sorts of demands.

Finally, the peculiar status of 'adventure' stories on these measures should be noted. Stories with adventure themes are significantly[4] more thoroughly distanced in setting and character than are stories classified as having either a weak or a strong theme. (There are also large differences in tone, but this is an artifact of the definitions of 'light' tone and 'adventure' theme.)

For status-of-action, the contrast of most interest is between stories limited to fully acceptable actions, and all others. Here the effect of threat on the form of the story seems stronger than in the analysis using strength of theme, but it again involves for the most part the same variables. The major change is that stories with acceptable actions have much more realistic settings in both age groups; younger children continue to exclude themselves from threatening stories, and to set them more consistently in the past (table 18). There is a significant interaction between the age groups, which seems to be a

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[4] For the older children, chi-square for characters = 3.98, p <.05; chi-square for setting = 6.64, p <.01. For the younger, chi-square for characters = 8.22, p <.004; chi-square for setting = 17.31, p <.001. All tests two-tailed, with df=1.

Table 18: Relationships Between Distancing and Status of Actions Depicted

	Percent of Stories			Tests of Effects[1]	
Status of action:	Acceptable	Sanctioned	Not Acceptable[2]	Acceptable vs. others Chi-square (df=1)	Interaction Age by Action Z
N for younger:	18	26	16		
N for older:	16	19	25		
Realistic characters					
Ages 2;0-3;11	61.1%	50.0%	50.0%	0.26	0.86
Ages 4;0-5;11	43.8	42.1	56.0	0.02	
Realistic setting					
Ages 2;0-3;11	94.4	69.2	68.8	3.23*	0.16
Ages 4;0-5;11	81.3	42.1	48.0	4.71*	
Self excluded					
Ages 2;0-3;11	61.1	100.0	87.5	8.99***	3.12***
Ages 4;0-5;11	100.0	89.5	92.0	0.44	
Light tone[3]					
Ages 2;0-3;11	22.2	48.0	40.0	1.85	0.59
Ages 4;0-5;11	56.3	73.7	64.0	0.30	
Consistent past tense					
Ages 2;0-3;11	44.4	84.6	81.3	7.57***	2.53*
Ages 4;0-5;11	93.8	84.2	92.0	0.01	
Formal beginning					
Ages 2;0-3;11	33.3	30.8	50.0	0.00	0.22
Ages 4;0-5;11	81.3	78.9	84.0	0.11	
Formal closing					
Ages 2;0-3;11	11.1	7.7	0.0	0.12	0.05
Ages 4;0-5;11	37.5	26.3	28.0	0.20	

[1] One-tailed for main effects, two-tailed for interactions; on the method of testing interactions, cf. appendix II.

[2] 'Sanctioned' includes sickness, injury, and conventional violence.

[3] Omits 2 younger children with indeterminate tone.

*p <.05
**p <.01
***p <.005

by-product of a ceiling effect for the older children: their stories are so consistently set in the past, and so consistently about characters other than themselves, that there is no room left to further distance the more threatening stories in these ways.

If we stand back from the complexities of this pair of tables and look at the trends that emerge, we can begin to tie these results in with our model of language use as it was presented in chapter II. Pitcher and Prelinger (1963) assert that there are certain phase-specific themes that emerge from the psychoanalytic literature in general and from this collection of stories in particular--themes which represent especially important developmental issues, focal points of concern during the years before six. Stories which attempt to come to terms with one or another of these developmental problems are what in general we have been calling stories with 'strong themes'; in a high proportion of the instances, they are also stories which involve actions which knowingly violate acceptable social conventions: someone hits a parent, forgets his toilet training, or is abandoned unloved by someone he trusted. In our model of language use, such stories have moved out of the expressive toward one or another pole of the elaborative choice.

A second large group of stories, on the other hand, can be seen as originating much closer to the expressive, commonsense world; rather than exploring developmental issues, they relax within the comfortable confines of a world which is posing no immediate problem. If the developmental themes are relevant to them at all, they are relevant only in the sense that the child has already found a way to handle them, and their content does not intrude to disturb the calm of the story world. This story world is one that works the way the child's expectations have led him to believe it should work, and as such those expectations are simply used without the need to affirm or to challenge them. These are stories in which the actions of the characters are well within the confines of social acceptability; if sickness or injury appear, they come in the guise of transitional phenomena on the way to better health. These stories are definitely not 'empty forms', any more than in adult literature the diaries of Boswell or Pepys are empty; but, like those diaries, neither are they responding to strong pressures from either pole of the elaborative choice.

Finally we are left with the adventure stories, which may in fact have no thematic content at all. Though they are strongly distanced in terms of the measures used here, this distancing can be explained as a purely conventional one, a product of expectations about 'adventure stories' rather than of any individual 'use' of these resources toward other ends. The worlds of cops and robbers, cowboys and Indians, pirates, and war are worlds that exist for the child only in stories; but they are worlds with which the child of five is very familiar. In a sense, to distance stories by placing them in these worlds is simply to put these characters and actions in the only place the child has ever seen them. Rather than accepting such stories as expressions of unconscious wishes and desires, it seems more likely that they are simply explorations of this special story-world itself. Many may not have even that much content; they may simply be artifacts of the task situation, garbled repetitions of recent television programs used to meet the investigator's demand to "Tell me a story."

Other Evidence

For the present this is conjectural. Stories taken in isolation as these must be offer no external, fully independent means to assess the degree of involvement and coming-to-terms which they represent for the children offering them. This is an area where we clearly need a well-designed experimental study in which the response measures and the experimental conditions can be kept separate from one another. For the present the evidence is strongly suggestive, if far from conclusive, and the results at least congruent with those of other studies. Ames (1966) tabulated a number of situations which she felt represented ways in which the child protects himself in telling his stories. As with her data on causality (discussed in the previous chapter), Ames recorded instances rather than attempting global measures. In her study, harm to opposite sex or to sib, harm to animal, harm to object, reversal of ill-fortune, punishment of wrong, conditional or almost-happened violence, violence that does not actually happen, and harm to a child of the same sex were all scored separately. Though age trends were erratic, Ames concluded that the youngest children protect themselves by having bad things happen to their brothers and sisters or to someone of the opposite sex (24.5 percent at two), to animals (21 percent), or to objects (10.5 percent). Reversal of ill-fortune becomes a strong device by three, appearing in 32 percent of the stories. All of these devices continue to be used, and are joined in the older age groups by punishment of villainy (in 22 percent at four and a half), and by toying with the notion of violence but not actually allowing it to occur (34 percent at four and a half). Many of these devices for protection of the self, of course, were considered in the present study as being the sorts of incidents from which the child might want to be detached. To be punished for villainy, for example, leaves open the possibility that it is the child himself who is the villain.

An experimental study by Boyd and Mandler (1955) takes us much further. They were working with older children than we have been considering; the sample included 96 third-grade American children, with an average age of 8;5 and an average IQ of 101. Boyd and Mandler used four stories with human characters and four with animals; each of these sets included two stories with 'good' (socially approved) and two with 'bad' (socially disapproved) behavior. Each child heard two stories, and after each story was shown a picture (either of animal or human characters, as another design variable) and asked to write a story of his own about it. The resulting stories were analysed for a number of aspects of form and content, with tests of main effects and interactions due to content (good vs. bad), stories (animal vs. human), and pictures (animal vs. human). Of the results which are reported, several are of direct interest to us. "I" appeared more frequently in response to good content ($p < .07$), punishment in response to bad ($p < .01$). This latter, though not directly related to distancing in our analysis, does support the world-ordering nature of stories: the balance of expectation has been upset by the stimulus and is being restored to some extent in the response. These were the only significant differences due to the content of the stories directly. There were differences on all response variables except one, however, between human and animal stories. In general, the data suggest more involvement with the stories about humans, and more anxiety about socially disapproved behavior of humans than of animals. The effect of substituting animal for human characters seems to be to remove the stories to a realm in which their implications will be less threatening. Supporting this is Boyd and Mandler's additional finding that 74 percent of the children preferred animal stories, a natural result if animal stories do in general produce less anxiety.

Problem-Solving

Finally, we can relate the problem of distancing to our earlier discussion of the complexity of stories. If a story is interpreted through the reader's or listener's system of personal constructs, then the events in the story will either validate or invalidate that system. The more central the constructs are to the person's construct system, the more complex and far-reaching will be the effects of any difficulty the story creates. To change core constructs, those which structure expectations about the commonsense, taken-for-granted world of immediate experience, may involve so many realignments that the problem may simply become too complex to handle. Distancing in the terms we have been discussing it is one way in which this complexity can be reduced to a manageable level. Even as it increases the total conceptual complexity by extending the world beyond the immediate confines of home and family, it also provides a 'scene' of action whose implications will be less directly related to a person's core constructs and which will, as one result, be less complex to order and understand. By involving himself less directly in the story, a person may be able to find solutions to predicaments which he might otherwise not even be able to acknowledge.

Many of the stories with 'strong themes' are striking illustrations of this. Children use them to discover for themselves some of the consequences of actions like killing their parents which, we must suppose, they have never and will never attempt 'in real' instead of 'in story'. These explorations do not have to be interpreted as expressions of unconscious conflicts or wish fulfillment (though in a few cases they may be); it is more to our present point to recognize that these actions are entailed within the conventional set of social expectations. To set a norm is to create the possibility of violating that norm; to understand the norm means learning what counts as a violation as well as what counts as observing it. By removing the characters and setting from his own immediate sphere of existence, the child is given a simple way to explore these norms without threatening other important constructs. He can see what happens to 'bad people', for example, without himself doing anything which would conflict with his expectations about what he, as a 'good person', does.

Griffiths (1935), who obtained a wide variety of fantasy products from a relatively small sample of five year olds, provides us with some good examples of how the child may use the story form to understand his world without in any sense posing himself problems to be solved. Alfred told her one such series of stories, spread over nine school days. The first two stories, told two days apart, set out the experience he is in the process of assimilating:

> 1. Once upon a time there was a boy, and he went out fishing, and he saw a fish in the water, a...a...a big one. So he got his net out, but he didn't want that big fish, he wanted only his little fish.
>
> 2. Once upon a time there was a boy and he went out fishing, and he saw a big fish in the water, and this big fish popped up and ate the boy all up.

As Griffiths puts it, he has yet to resolve "how to avoid being devoured by the fishes when one goes fishing." During the succeeding interviews, Alfred's stories explore a variety of approaches to this basic issue: in the third, the fish simply catch themselves, even walking across a bit of land to climb into the collecting jar. The fourth simply avoids the topic, sending his character off to the country; there he picked buttercups and "he didn't do nothing else." By the fifth of the series, he is back to the water's edge, dipping his net, but the fish still climb in of their own volition. Next he loses his fishing gear, "so he didn't have no jar to put his fishes in." By the seventh interview in this series, Alfred has begun to master this problem, turning it into a joke and laughing heartily:

> 7. Once, er, once upon a time, wait a minute I just thinking...a boy went out, he went fishing, and a lil fish jumped on his nose.

The humorous inversion seems to have been a final step in construing this experience, leaving Alfred's world once more at ease with the problem of fishing:

> 9. Once upon a time, a boy went out fishing, and he brought a big fish home in his jar, and a lot of little ones. (pp. 180-81)

5. Summary

Data presented in this chapter provide less satisfactory evidence about the issues under discussion than we have been able to muster in earlier chapters. To an uncomfortable extent, the effects of most interest are confounded with one another and the results capable of more than one interpretation. Still some of the findings are clear, and the others are suggestive.

The data demonstrate that as a child matures, he is able to explore in his stories patterns of behavior which are further and further removed from his immediate experience. The two year olds set 97 percent of their stories in the immediate world of their home and family; within that setting, the majority of the actions depicted are ones with which they are also familiar (eating, sleeping, crying, spanking). By five, only one-third of the stories remain situated in or near the home, and only

7 percent involve fully realistic actions and behavior. If the results are conceptualized in terms of Bullough's (1912) 'psychical distancing', the stories of the five year olds are much more fully distanced than those of their younger peers.

There is some evidence that the development of form which the older children show represents an expansion of the range of options available to each child, rather than simply progress from one limited set of options to another, more advanced set. On a variety of measures, the older children are less likely than their younger peers to use the same options in telling a second story a few weeks after their first.

The weakest but in many ways the most interesting findings suggest that this expanding range of options is systematically exploited by both the older and younger children as they undertake the task of organizing and assimilating the patterned experience with which a story confronts them. In particular, they seek to remove from the sphere of immediate experience stories whose content poses any sort of threat; these tend to be distanced both in setting and in time, with the narrator leaving himself out of the narrative. But the fact that the measures of threat and of distancing are both derived from the same source material makes this a finding very much in need of experimental confirmation.

CHAPTER VII

DEVELOPMENTAL STAGES IN THE FORMULATION OF LITERARY RESPONSE

1. Introduction

Earlier chapters have been concerned with the gradual separation of spectator-role language from other modes of language use. This chapter will treat the somewhat different problem of developmental stages in the way in which a child is able to verbally formulate his response to a story. The focus will be on the underlying sets of constitutive rules that determine what a work 'counts as' to the reader: what sort of conceptualization of the work is reflected in the way he chooses to discuss it? Does the child treat the work as simply a pattern of temporally related incidents? As a consciously structured 'verbal object'? as Harding's (1962) "accepted technique for discussing the chances of life?" How the child conceptualizes or summarizes a work in a real sense determines what the work 'is' for him, and is thus an important element in determining what its effects may be.

Piaget's theory of intellectual development provides the most thoroughly developed framework for analysing changes in the nature of the constitutive rules underlying thought processes. His studies have been wide-ranging, and though he has not specifically studied literary or artistic response, it would be surprising if his findings were not relevant in these areas as well. Previous work in literary response unfortunately does not take us very far here; most studies have adopted an eclectic approach without a firm conceptual frame. Investigators have usually focussed upon what might be called the 'school of criticism' which the adolescent or young adult reader brings to bear,[1] producing findings that reflect patterns of schooling imposed upon already relatively mature response, rather than developmental patterns in the structure of the response itself.

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[1] These studies have been summarized by Purves and Beech (1972), D'Arcy (1973), and Squire (1969); they provide a background of expectations about general types of response against which the present study takes place, but lead to very few general hypotheses about the course of development. From them, for example, we would expect to find 'interpretation' rising among older children, and more concern with the 'action' and the 'events' among younger.

This chapter will explore the relationships between observed changes in literary response and the more general changes in patterns of thinking which Piaget and his followers have described. The implicit question will be whether drawing such parallels between an aspect of spectator-role experience and the more 'scientific' modes of thinking usually studied is a useful exercise; as with our analysis of poetic form in chapter V, the results will suggest that it is.

2. The Elements of Response

Procedures

The main-study samples of children between the ages of six and seventeen were used to investigate the way in which children of different ages discuss stories. (These samples are discussed in chapter III and summarized briefly in supplementary table 38.) Students receiving the first interview schedule were asked, "What is your favourite story? Tell me about it." Those receiving the open-ended questionnaire were told, "Pick any story or poem you know well and write about it." These questions were deliberately ambiguous in order to leave open as many different modes of discussion as possible; the intent was to allow each child to respond in the way which he ordinarily considers appropriate, rather than to test his ability to respond in one or another specified way. Some of the older children protested that they did not 'know what was wanted', but all seemed eventually to accept that there was no 'right' answer, and once convinced of that, to respond with little evident resistance.[2]

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[2] During the preliminary study, a similar question included a list of further suggestions; this was abandoned after it became clear that many of the older children used the list as an outline of points to deal with in turn, often without any other structure to their response. The present procedure sought to discover what the students, rather than the investigator, thought was relevant.

This procedure differs from previous investigations in that it allows the child to supply his own titles for consideration within the context of the general category of 'favourite books' or ones that are 'known well'. On arguments similar to those Kelly (1955) has used in structuring his diagnostic and clinical procedures around role-titles rather than fully specified stimuli, this should provide each child with a task more similar to the task other children face than would the more usual procedure of eliciting responses to an unfamiliar story. Asking for reactions to a particular story brings in a range of variables which are difficult to control--differences in reading or listening ability, verbal ability, previous experience with similar stories, even the amount of time various children need to spend to assimilate the experience will all contribute to differences in the initial expressed response. By asking for discussions of stories already known, this initial process of assimilation is bypassed in order to look more directly at the meaning stories are given by the child, rather than at the process of giving the story that meaning. This is an especially important distinction to make in the study of response to literature, for which there is good evidence that the giving-of-meaning is a slow, contemplative process involving significant changes over relatively long periods of time (Britton, 1954; Peel, 1964; Wilson, 1966; Harding, 1968).

The Purves-Rippere (1968) Response Categories

Collecting discussions of favourite stories and of stories which the children know well is time consuming but straight-forward; quantifying the responses in a meaningful way is both time consuming and difficult. The major problem is that the various systems of analysis which have been proposed in previous research are eclectic, resulting from content analysis of obtained responses and the more or less intuitive sense of the investigator about which varieties are 'interesting' and which 'related'. The analyses undertaken for the present investigation were frankly exploratory, attempting to develop a general set of categorizations that could be related more rigorously to a model of response.[3] The starting point was a set of 'elements' of response developed by Purves and Rippere (1968) as a neutral, atheoretical means of describing literary reactions by coding them statement by statement. These elements range from such literary devices as 'allusion' and 'irony' to general statements of 'thematic importance' or 'identification'--139 elements in all, combined into 24 subcategories and 5 categories.

Purves and Rippere, in describing the ordering of the elements, write:

> The groups in the elements, finally, are my own, resulting from much discussion and much shuffling. The order, and even the existence, of some of the elements has been subjected to criticism and has now evolved into a series of groupings which are, I think, logical and defensible, although, like any ordering, arbitrary. (p. 9)

From the point of view of the present study, this was considered from the beginning to be a disadvantage in the Purves-Rippere categories, as well as in general false. No ordering is ultimately arbitrary, though its basis may be more or less explicitly formulated, more or less tied to a theory, and more or less based upon empirical relationships among the elements being ordered. Purves and Rippere's ordering seems based primarily though not exclusively on traditional areas of literary criticism, but this is not made explicit and as one result the analytic power of the system is seriously undercut. Having found changes in patterns of response, we are left with the question of just what these changes represent. Are they changes in ability? in 'richness' of response? in comprehension? in the favoured school of criticism? in the psychological relationship between reader and work? There is no way of knowing.

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[3] Because the analysis is exploratory and to some extent iterative, there is some danger of capitalizing on idiosyncracies of the particular sample gathered. To ameliorate this somewhat, all tests in this and the following chapter are two-tailed, even when hypotheses have been formulated in advance about the nature and direction of the changes.

In spite of these reservations, the elements provide the most thorough system of content analysis yet proposed for literary response, and have been quite widely adopted by other investigators. Though the elements were developed with the responses of secondary school children in mind and might be expected to be less satisfactory with our two youngest samples, all of the responses were initially scored with them. This had the dual purpose of giving other investigators a known reference point within the context of the present work, and of providing the present investigator with a starting point, even a straw man to tilt against, in attempting a categorization of responses with a firmer conceptual base. Each discussion of a favourite story and of a story 'known well' was divided into T-units, and each T-unit was classified as one of the elements.[4] For statistical analysis, the percentage of each child's T-units falling into each of the 5 major categories was computed, and means for age and sex groupings calculated from these.

To summarize the Purves-Rippere categories very briefly, the first is 'Engagement-Involvement' and reflects the degree of surrender to the literary work--the 'suspension of disbelief' or the 'identification' which the reader acknowledges. The second category is 'Perception'; this is the way in which the reader perceives the work as an object distinct from himself: it includes his analysis and classification of the work, as well as his description of its parts. The third category is 'Interpretation', the drawing of inferences about either the form or the content of the work; where perception is based in the characteristics of the work, interpretation involves a generalization beyond it. The fourth category is 'Evaluation', how the reader judges the effect of the work, the way it is written, or the importance of its theme. Finally a fifth category is used for miscellaneous digressions and otherwise unscorable responses.

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[4] This is Hunt's (1965) minimal terminable unit, discussed in chapter V. The stories being analysed become increasingly various, rising from 8 different titles (mostly fairy tales) selected as 'favourites' by the 22 six year olds, to 18 different titles (mostly novels) selected as stories which they 'know well' by the 20 seventeen year olds. For specific titles frequently cited at each age, cf. supplementary tables 36 and 37.

At six, 3 boys and 3 girls who wanted to retell the story they had chosen gave up because they "didn't remember it well enough." These refusals (which fall almost entirely in the 'miscellaneous' response category in the Purves-Rippere system) are not included in the calculations which follow.

The immediate and striking thing about the results of scoring the discussions in this way is the lack of any systematic change in the use of these response categories from six to thirteen, even with the change of task (from oral to written and from 'favourite story' to a 'story you know well') and, at thirteen, the change of school setting (table 19).

Table 19: Purves-Rippere Categories in Unstructured Discussions of Stories

	Average Percent of Each Student's T-Units					
	Favourite Story		Story Known Well			
	Interviews		Comprehensive School		Selective Schools[2]	
Category	Age 6 (n=16)[1]	Age 9 (n=22)	Age 9 (n=30)	Age 13 (n=30)	Age 13 (n=20)	Age 17 (n=20)
1. Engagement	0.0%	2.8%	0.0%	0.8%	3.2%	6.6%
2. Perception	92.9	78.0	71.1	79.0	71.8	31.3
3. Interpretation	0.4	0.5	0.0	3.6	4.2	19.3
4. Evaluation	6.3	16.0	23.1	14.3	17.4	38.1
5. Miscellaneous	0.4	2.8	5.8	2.4	3.4	4.7
	100.0%	100.1%	100.0%	100.1%	100.0%	100.0%
Multivariate F-Statistics[3]	6 vs. 9		9 vs. 13	13 vs. 13[4]		13 vs. 17
Age (or school)	0.64		1.48	0.42		6.06***
Sex	0.68		1.48	2.38		4.15**
Interactions	1.03		0.57	1.06		2.87*
(df for each effect)	(4;31)		(4;53)	(4;43)		(4;33)
Significant (.05) Univariate Effects						
Age (or school)	-		-	-		2,3,4
Sex	-		-	2,5		2,5
Interactions	-		-	-		1

[1] Omitting 3 boys and 3 girls who did not respond.

[2] Girls give more perception responses and fewer miscellaneous ones than boys in this sample; cf. supplementary table 3 for detailed results.

[3] Since there is a linear dependency in the scores, the multivariate analyses were carried out on 1 to 4 only. Results would be identical whichever were omitted. Univariate effects are listed only if the multivariate F reaches at least the .20 level of significance.

. There are no significant within-subject differences between oral and written responses at age nine on these measures; cf. supplementary table 5.

[4] I.e., school contrast.

*p<.05
**p<.01
***p<.005

Through the age of thirteen, responses classified as 'perception' dominate all ages, with virtually no 'interpretation' and a fluctuating percentage of 'evaluation'. Between thirteen and seventeen, the proportion of responses classified as 'perception' drops sharply, with corresponding rises in both 'interpretation' and 'evaluation'. If we interpret this as evidence of more generalizing by the older students, the changes seem sensible and in line with those suggested by previous investigations. (Cf., for example, Morris, 1970, and Wilson, 1966; neither study is developmental but both compare their results with similar investigations involving younger children.) The trouble with this interpretation in the present case is that much that is 'interpretative', or at least highly analytic, falls into the 'perception' category; in fact Purves and Rippere (1968) reported quite a different developmental pattern for one of their own studies. Analysing responses from 43 thirteen year olds and 57 seventeen year olds writing about William Carlos Williams' short story, "The Use of Force," they found a rise in 'perception' with age (from 33 to 47 percent), little change in 'interpretation' (10 to 13 percent), a rise in 'engagement' (18 to 24 percent), and a drop in evaluation (35 to 14 percent).[5] The differences between these results and those from the present study may be due to differences in the task or in the populations sampled, or they may result because the difference between 'perception' and 'interpretation' in the Purves-Rippere system is not a developmentally relevant one.

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[5] These figures are based on the total scorable statements produced by all students at each age and do not compensate for differences in the length of responses from different students. Data in the present study (and much of Purves and Rippere's data as well) are based on computations of the proportion of responses in each category for each student; this produces average percentages for comparing age and sex groupings. The difference the two reporting modes can produce is substantial; in the present study, for example, 'interpretation' at seventeen rises from 19 to 33 percent simply by changing from computations based on average percentages to those based on percentages of all scorable statements, while 'evaluation' falls from 38 to 25 percent. This is because the analysis by total number of statements weights each student by the length of his response, that by average percentages weights each equally. Either way, Purves and Rippere's results are at odds with the present sample.

Changes in Subcategories

The lack of differences among the responses of the younger children is itself counter-intuitive, and suggests that at that level, at least, the method of analysis is not relevant to the developmental changes. The first possibility to investigate is that shifts in response are occurring within rather than between the 5 major categories, and thus that the attempt to collapse scores has obscured real underlying shifts. To explore this possibility, the proportion of students at each age who use each of the subcategories at all in their response was separately tabulated. The general pattern that emerged from this analysis was for all of the subcategories, whatever more general category they belong to, to be used in a higher proportion of the older students' essays. Out of all 24 subcategories, only that labelled content shows a decrease with age; it drops from a high of 93.8 percent at six to a low of 55.0 percent of the essays at seventeen. 'Content' is used for statements which quote or describe what happens or what the work is 'about' in a factual, noninterpretative manner; the shift in the proportion of students who use it is worth exploring further.

Variety and Complexity

Before taking up 'content', however, it is worth noting that the pattern evident within the subcategories continues when the responses are further broken up into the full set of 139 elements. The overriding pattern is for each to be used by a larger proportion of the older than the younger children. If we take the number of different elements used at least once in talking or writing about a literary work as a rough index of the 'variety' in modes of discussing stories, this suggests that this variety in response must also increase with age. Table 20 (below) summarizes these data and puts them into the context of the overall length of the response as measured by words and T-units, and of linguistic complexity as measured by the average number of words per T-unit. The

Table 20: Length and Variety in Unstructured Discussions of Stories

	Average					
	Favourite Story		Story Known Well			
	Interviews		Comprehensive School[2]		Selective Schools	
Measure	Age 6 (n=16)[1]	Age 9 (n=22)	Age 9 (n=30)	Age 13 (n=30)	Age 13 (n=20)	Age 17 (n=20)
1. Number of words	193.2	124.5	52.6	91.2	120.8	114.7
2. Number of T-units	29.5	15.5	5.6	8.4	9.3	6.8
3. Words per T-unit	6.4	7.1	9.4	11.8	13.6	17.7
4. Number of elements[3]	1.3	2.2	1.5	3.3	4.1	5.5
5. T-units per element	27.4	9.7	4.5	2.9	3.4	1.2
Multivariate F-Statistics[4]	6 vs. 9		9 vs. 13	13 vs. 13[5]		13 vs. 17
Age (or school)	5.10***		9.32***	2.46*		3.00*
Sex	1.28		1.50	3.06*		1.59
Interaction	1.22		2.44*	1.28		0.53
(df for each effect)	(5;30)		(5;52)	(5;42)		(5;32)
Univariate Effects (.05)						
Age (or school)	2,4,5		1,4,3	-		3,5
Sex	-		-	1,2,5		-
Interaction	-		3	-		-

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[1] Omitting 3 boys and 3 girls who did not respond.

[2] Supplementary table 4 presents the data showing significant interactions more fully.

[3] Number of Purves-Rippere (1968) 'elements' of response used at least once by each student.

[4] Based on all 5 measures. Univariate effects are listed only if the multivariate effect reaches at least the .20 level of significance. For within-subject differences between oral and written responses at age nine, cf. supplementary table 5.

[5] I.e., school contrast. The girls use more words and more T-units, and have a higher T-unit per element ratio, than the boys in this sample.

$*p < .05$
$**p < .01$
$***p < .005$

first thing to note is that if the older children's responses include more elements of response than do the younger's, it is not the result of an increase in length; in fact the six year olds use more words and more T-units than any other group.

Table 20 shows a steady growth in the average number of words per T-unit, from 6 at six to 18 by seventeen; this is consistent with our earlier interpretation of this measure as reflecting linguistic maturity within the constraints of a given task. The number of different elements of response used in the course of each discussion shows a similar general rise, but there is a sharp discontinuity between the oral and written tasks for the nine year olds; the oral responses are much longer and involve on the average half again as many different elements of response as in the written discussions. If the differences in the length of the discussions are roughly equated by computing the average number of times a given element is used in each discussion, however, as in the last line of table 20, there is again a very steady trend toward greater variety as age increases: the six year olds average 27 repetitions of each element they use, the seventeen year olds slightly over one.[6]

Oral Versus Written Responses

The differences between oral and written responses at age nine are very interesting. The percentages in table 20 cannot be directly compared because 21 children are included in both groups. These 21, however, can be used for within-subject comparisons of the differences between oral and written tasks. These within-subject differences are in the same direction and of roughly the same magnitude as the changes in table 20. The oral responses are significantly longer whether measured in words or T-units, and they involve on the average more different elements of response. Conversely, the written responses are linguistically more complex as measured by the average number of words per T-unit, and show some evidence of greater variety as measured by the average number of T-units per element.[7] Taken together, these differences suggest that writing is still quite a difficult task for these children, but that at the same time this very difficulty forces them toward a somewhat more 'mature' response. Though they write less, their T-units are longer and there is a greater variety in their use of elements of response.

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[6] This method of control is only approximate, but it is relatively accurate within the constraints of the present task (in which the number of T-units per essay remains substantially below the total number of scoring categories).

[7] Using t-tests of within subject differences, the first 4 variables in table 20 show significant differences between oral and written responses at the .02 level or better, the last, at the .08 level, all two-tailed. Cf. supplementary table 5.

School Contrast

The contrast between the two thirteen year old groups should also be noted: it suggests that the selective school samples are indeed somewhat more able than their comprehensive school peers. The responses of the selective school students are somewhat longer and, more importantly, they are linguistically more complex and show greater variety in the use of response-elements. This is as would be expected, however, if the selective schools are in fact more selective in their choice of students.

Most Important Response

After writing about a story or poem they knew well, children receiving the written questionnaire were asked to indicate the part of their answer which they thought represented the most important thing to say about the story. These responses parallel the findings already reported: the nine year olds overwhelmingly choose some aspect of the action of the story as the most important part (66.7 percent); another 17 percent indicate some form of evaluation. By thirteen, concern with action drops to 53.3 percent in the comprehensive school and 45 percent in the selective school, with evaluation at 26.7 and 20 percent, respectively. By seventeen, none of the students select action as most important, 45 percent choose an evaluative response, and the remainder scatter between interpretation (25 percent), engagement (10 percent), and aspects of structure, genre, or tone (20 percent altogether).

3. Levels in the Discussion of Stories

Discussing the Action

The major shifts which have so far emerged in the ways in which stories are discussed have been concentrated in the general category 'perception' and more particularly in its subcategory 'content'. This can be narrowed even further if elements of response are considered: at six, for example, 97.7 percent of all of the T-units used fall into the single element-classification 'perception of action.[8] (This element continues to be the most frequent within the general category 'perception' up to seventeen, though by then it represents a relatively small part of the total response.) During the initial scoring, 'perception of action' seemed to be confounding several quite different types of responses. As Purves and Rippere (1968) describe it in their scoring manual, a statement coded in this element-category "may quote, paraphrase, or summarize the action" (p. 20). The children in the present study produced whole discussions which seem to correspond to one or another of these 3 ways of representing the action. At one extreme is the simple attempt to retell the story, complete with title, formal opening and closing lines, and dialogue. Eric's contribution is a good example of this approach; it was offered with considerable animation:

> Once there was the three little pigs. And they asked the man with some straws, "Can we have some straws?" says the first little pig. And he gave them some straws and he built a straw house. In came the wol-, the wolf. He puffed and he puffed and he blew the house down. And he puffed and he puffed. And when the house fell down and so three little, the second three little pig went to the man with some sticks and he said to the man, "Can I have some sticks for to build a house?" And then the man said, "Yes," says the man and he gave him some sticks. And when he builded the house up and he was, and he puffed and he puffed, and he puffed and he puffed. And he blew all the sticks all fell down. And then he went to the man with some bricks. He said, "Can I have some bricks for the house, to build a house? "Yes" said the man, and he gave him some bricks.
>
> So when he builded the house of bricks, wolf came along and blew the house down but he couldn't. So one day the wolf came and said to the, to the second pig, "Shall we go to Farmer Field's house, Farmer Field's grass? And he said, "Alright." And then he did go already but the wolf came back and he said, "Let's go to it now." And he said, "I've been to the Farm Field's house." So he said, "Let's go and go to the next field and pick some apples, there's an apple tree there. So we can pick some." So first he went to the apple tree and picked some apples. And then it was so fat and so he runned away and the apple went down the hill into the road. So the three little, the pig went into the, into the churn and he went around, and he runned the wolf over. And he said, "I runned you over."

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[8] Note that this is a percentage of the full set of statements, rather than the average percent of each student's responses that are reported in table 19.

> Then he rolled back to the house. And then...so...then the wolf went in the chimney pot and the three little pig put some water, some hot water in then and then he fell down into the pot, "Plop." And he lived happily ever after.
>
> --Eric M., 6;1

Eric's is by no means alone in its detail; it is not even the longest of the retellings that were received in response to these questions. Confounded with his answer in scoring the Purves-Rippere elements, however, are others which are best described as summaries of the action; they make little or no attempt to tell the story, but do tell 'what it is about'. Richard and Barbara both give summary responses in writing about stories on the questionnaire:

> I think that the Famous Five stori's are quite good. In the storis there is a lot of adventure and a lot of things happen. They get bad luke at the beginning and thing all kam out all right in the end.[9]
>
> --Richard O., 9;3

> Cinderella is a grile that had very nies invengeras [adventures].
>
> --Barbara T., 9;1

When children talk rather than write about stories, their summaries are often more detailed. During the interview, for example, Barbara provided the following summary of 'Sleeping Beauty':

> It's about a man and a lady that....The lady falls asleep cause she hurt her hand on the spinning wheel. And she fell asleep. And the witch that made her do it said she, that she'll sleep for a hundred years. Then after the hundred years the prince came and kissed her and they all woke up in the palace. And everyone woke up and it was, and then they got married and it was very nice. It was a lovely end and everything.

This seems to fall onto a continuum between complete retelling and complete summarization of a story; much of it is 'synopsis' (or what Purves and Rippere call "paraphrase"). Whereas retellings frankly attempt to retell the story in its original form and summaries attempt to encapsulate the plot within a more general category ('adventure', 'lovely end', and so on), the synopsis is almost a report of ongoing events. Usually this results in some condensation and summarization, but the synopsis can be as long as the story-telling itself. Rebecca's account of 'Little Red Riding Hood' is another good example:

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[9] This and all other examples of children's writing used here preserves the original spelling and punctuation without special note; comments are added (as in Barbara's response) only when needed to insure that the meaning is clear.

> Well, it's about a little girl and her nannie makes her, makes her a red cloak. And, a, one day her nannie's not well and her mother sends her out with something to give to her nannie and she meets big bad wolf and the big bad wolf asks her where she's going and she tells him. She rushes off to there and a, the grandmother's not there so he get dressed up in grandmother's nighties and gets into bed. Red Riding comes along, knocks on the door, and he tells her to come in. And she goes in, and, a, she gives him some things and she says, "Oh grandmother what big teeth you got, what big ears and what big eyes you got." And when she says teeth goes the better to eat you with and he jumps out of bed and runs after her. And the huntsman, a, gets him and chop his head off. Now Little Red Riding Hood can go and see her grandmother as often as she likes.
>
> --Rebecca C., 10;1

The synopsis usually starts with "It is about...," continues in the present tense, and reports rather than recreates the dialogue. Rebecca, for example, did not change her tone of voice for the dialogue in her discussion; many of the children use such condensations as, "She says, 'What big eyes you got and all that'" (Nicholas H., 9;8).

These distinctions, emerging out of the first attempt to quantify the responses to stories, are related to quite different sorts of intellectual operations. To retell a story is essentially an enactive, preoperational mode of response. Each incident leads to the next, but there is no need to impose a larger, superordinate structure. Summarization, on the other hand, involves ordering and classification; the events in the story are put into categories on the basis of their concrete, perceived character, and larger relationships (between beginning and end, for example, or between 'happy parts' and 'sad parts') are noted and used; here the structuring is imposed by the reader instead of being accepted by him from the author. In Piaget's general framework, these differences relate to the contrast between preoperational and concrete operational modes of thinking, a contrast which should in general be present between the six and nine year olds in this investigation. The distinction, then, between retelling and summarization (with synopsis as an intermediate category) gives us the beginning of a second approach to quantifying the discussions.

Analysis and Generalization

Remaining at the level of the discussions as a whole, two other quite different modes of discussion became evident in the course of scoring the responses. One of these is analysis, the other, generalization. These are traditional categories, but are not directly reflected in the Purves-Rippere (1968) grouping of elements. The characteristic of analysis is that the work is treated in terms of 'how it works': its mechanics, the logic of its structure, its images and symbols. Whereas summary is concerned primarily with ordering the work into categories based on its concretely given characteristics, analysis is concerned with understanding the reasons behind those characteristics. For the first time it begins (implicitly if not explicitly) to consider how the work might have been structured as well as how it is structured. In this sense, analysis is a blend of some of the Purves-Rippere elements of interpretation and of perception, to the extent that both treat the work as an artifact whose shape is intentional rather than accidental. Analysis is often tied in with evaluation, as in Jill's and Jane's discussions:

> I don't know who wrote Rebecca but I loved her style of writing. All the time while she was writing she was describing in a different way to others. Always I wanted to see what else would happen--perhaps it was because she used small details. I liked best the bit where she first came to Manderley--I didn't like the mystery bit so much--because it didn't seem so real. I didn't particularly enjoy the first two chapters. But on the whole I thought it was a good book.
>
> --Jill V., 13;8

> The Lord of the Rings. J.R.R. Tolkien
>
> The most important thing about this book, is its almost complete reliance on the imagination of the reader. The actual book has tremendous sustaining power. It is long--comparable in length to 'War and Peace', and yet never becomes boring. This must lie in the authors continual introduction of new elements, and events. The nearest characters to human beings are the people at the inn at the very beginning of the book and Studes. This absence of the human element, gives complete freedom to the imagination.
>
> The strife between good and evil is tremendous. The book is well written in that the feelings in the 'good places' and in bad differ so completely. The central element--the ring is a force that can be felt throughout the book, although is not always specifically stated.
>
> I find all pictures of the characters in the book, disagreeable, as they seem to ruin the whole effect of the book.
>
> --Jane E., 17;3

Generalization, on the other hand, while often beginning in analysis, puts its emphasis upon the work as the statement of a point of view. The reader may agree with the author or offer an alternative, but the response differs from analysis in that it is now consciously concerned with understanding the world through the work, rather than with understanding the functioning of the work itself. Again, generalization may be directly linked to evaluation, though it need not be. Roy's discussion of The Satyrican takes place almost entirely on this level:

> A book which tells of life before the fall of an empire--the Roman Empire.. The book tries to suggest that rather than the fall being attributed to a general loosening in the control exercised over outside powers, it was in fact largely to be blamed upon the corruptions which developed within the Roman Empire. The slackening in control over their own actions, naturally led to the Romans being incapable of preventing the complete collapse of the Empire.
>
> --Roy F., 17;8

As with the difference between retelling and summarization, the difference between summarization and both analysis and generalization again represents a major shift in the kind of intellectual processes involved. Summary requires classification and ordering of the given; analysis and generalization require the consideration of alternative structures. This consideration of alternatives represents a shift toward reasoning by hypothesis, and corresponds to the shift between Piaget's concrete and formal operational stages.

Empirical Results

These results were used as the basis of a system for rescoring the discussions in terms of the level of response they indicate. The five major categories scored were 1) retelling, 2) synopsis, 3) summary, 4) analysis, and 5) generalization.[10] Each discussion was scored as falling into one of these five sets, with a sixth for those which only evaluate the work. (Both 'evaluation' and 'engagement' in the Purves-Rippere system seem to show their own characteristic progression in 'levels' rather than to provide separate points along this continuum; they will be taken up again in chapter VIII.)

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[10] Retelling/synopsis, synopsis/summary, summary/analysis, analysis/generalization were used as transitional categories during the scoring. These were collapsed upwards during analysis as 'any synopsis', 'any summary', and so on. Scoring consistency was high, with 80 percent exact agreement between raters on a subsample of 25 discussions.

The results of this reanalysis are summarized in table 21. Again, the full range of responses from six to seventeen is included, but the discontinuity between oral and written responses at nine years needs to be noted more carefully. The oral discussions were categorized directly from the tape recordings, not from transcriptions, and provide an additional set of paralinguistic cues about what the child is trying to do. Though the oral and written responses are consistently scored within each set,

Table 21: Levels in Unstructured Discussions of Stories

	Percent of Children					
	Favourite Story		Story Known Well			
	Interviews		Comprehensive School		Selective Schools	
Level	Age 6 (n=22)	Age 9 (n=22)	Age 9 (n=30)	Age 13 (n=30)	Age 13 (n=20)	Age 17 (n=20)
1. No response	27.3%	0.0%	0.0%	0.0%	0.0%	0.0%
2. Retelling	50.0	9.1	53.3	3.3	0.0	0.0
3. Any synopsis	13.6	40.9	6.7	30.0	25.0	0.0
4. Any summary	4.5	31.8	23.3	56.7	20.0	0.0
5. Any analysis	0.0	0.0	0.0	3.3	55.0	60.0
6. Any generalization	0.0	0.0	0.0	3.3	0.0	30.0
7. Evaluation only	4.5	18.2	16.7	3.3	0.0	10.0
	99.9%	100.0%	100.1%	99.9%	100.0%	100.0%
Chi-Square Tests[1]	6 vs. 9		9 vs. 13	13 vs. 13		13 vs. 17
Age (or school)	10.83***		21.83***	14.77***		8.27***
(Comparing categories:)	(2,3+4)		(2,3,4)	(2+3,4,5+6)		(3+4,5+6)
	df=1		df=2	df=2		df=1

[1] For these tests; categories are combined to raise expected frequencies to appropriate levels for use of chi-square. In the interviews, chi-square for sex = 4.17, comparing categories 2,3,4, df=2, nsd. On the written measures, chi-square for sex = 10.03, comparing categories 2,3,4,5+6,7, df=4, $p<.05$. This difference reflects a shift from more synopsis in girls' responses, to more 'evaluation-only' from the boys.

*$p<.05$, two-tailed
**$p<.01$
***$p<.005$

there may be artifactual differences between the two. Because of this, the discrepancy between the two conditions in table 21 is not tested for statistical significance.

When stories are categorized in this way, there are some striking differences between the age groups, as well as between the school situations at age thirteen. From six to nine, there is a move from simple retelling of a story to attempts to summarize it. The 'no responses' at six could legitimately have been treated as retellings, since in each case they resulted from children who thought what they should be doing was retelling, but who were not convinced they could remember it well enough. Between nine and thirteen, the comprehensive school children show some consolidation of their tendency to summarize rather than simply to give a synopsis, but very little movement toward higher-level categories; analysis and generalization together account for only 7 percent of their essays. At the selective school, on the other hand, the thirteen year olds show a clear move toward analysis. This accounts for over half of the essays they produce, though 45 percent continue to provide simply a synopsis or summarization of the plot. By seventeen, all of the essays which provide any discussion have moved into either analysis or generalization; two-thirds of these are concerned with analysis and one-third show some generalization.

4. Other Differences Between Retelling and Telling About

The data from the discussions of favourite stories and stories known well provide good evidence of age-changes in the preferred mode of discussing stories. To the extent that these changes reflect the way in which the story is conceptualized by the reader or listener, they are an important dimension of developmental change in response--one worth explicating as fully as possible. Several other series of questions on the interview schedules focussed on differences between retelling and 'telling about' stories. The results from these will provide some reassurance that the global classifications of 'levels' in discussion reflect real differences between responses, and should also give a fuller sense of what those differences are.

Discussions of 'Little Red Riding Hood'

Responses to a favourite story were requested during the course of the first interview schedule; children interviewed using the second schedule were asked, "What is the story of Little Red Riding Hood about?" Their responses show age-trends very similar to those already reported: six year olds are much more likely to respond with a simple attempt to retell the story, the older children to attempt a synopsis or summarization. There is overall, however, much more 'summary' on this question than on the previous one; this seems to be a product of the slightly different form in which the two questions were asked. "What is the story about?" was more often interpreted as a request for a character-list than was "Tell me about it." If character-lists are removed from the figures, 4.5 percent of the six year olds and 27.3 percent of the nine year olds respond with 'any summarization', figures which are remarkably close to those for the responses to favourite stories. (The data are reported in full in supplementary table 6.)

The series of formal markers of story-telling used as a measure of children's developing 'sense of story' in chapter IV provide another way to measure the extent to which the six and nine year olds are retelling or telling about the stories they are discussing. Responses to favourite stories and to 'Little Red Riding Hood'[11] were scored for the use of a consistent past tense, a formal opening, a formal closing, and the presence of dialogue, as well as for length and linguistic complexity. On this set of measures, as well as on the more global ones already discussed,

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[11] In this analysis, the full response including prompting with "What happens in it?" was scored; thus the data in tables 22 and 23 are not comparable to those in supplementary table 6 (which is based on the response before prompting).

Table 22: Formal Characteristics of Discussions of Stories at Six and Nine

Characteristic		Percent of Students: Favourite Age 6 (n=16)	Favourite Age 9 (n=22)	Little Red Riding Hood Age 6 (n=21)	Little Red Riding Hood Age 9 (n=22)	Chi-square[1] Favourite	Chi-square[1] LRRH
1. Tense:	past	93.8%	59.1%	47.6%	13.6%	4.09* (df=1)	6.02* (df=2)
	mixed[2]	-	-	14.3	18.2		
	present	6.3	40.9	38.1	68.2		
2. Formal opening:	yes	56.3	9.1	4.8	0.0	8.16*** (df=1)	ns[3]
	no	43.8	90.9	95.2	100.0		
3. Formal closing:	yes	31.3	4.5	4.8	9.1	$p<.04$[3]	nsd[3]
	no	68.8	95.5	95.2	90.9		
4. Dialogue:	quoted	68.8	27.3	42.9	18.2	4.88* (df=1)	10.10** (df=2)
	described[2]	-	-	0.0	36.4		
	none	31.3	72.7	57.1	45.5		
		Averages					
5. Number of words		193.2	124.5	77.0	86.0		
6. Number of T-units		29.5	15.5	11.9	9.7		
7. Words per T-unit		6.4	7.1	6.0	8.7		

Multivariate Analysis of Variance, Variables 5, 6, and 7[4]

Effect	F-Statistic (df=3;71)	Univariate Effects (.05)
Age	10.60***	6,7
Sex	1.62	-
Tale	7.12***	5,6
AS[5]	2.27	5,6
AT	3.95**	6,7
ST	1.31	-
AST	1.19	-

---

[1] Test of age differences. There are no differences for either story between the sexes on variables 1 to 4, using chi-square tests with ages pooled. Chi-square for between-story differences: Tense = 13.57***, Opening = 9.32***, Closing = 0.82, Dialogue = 1.25. Df=1 in all cases.

[2] This distinction was not made in scoring discussions of favourite stories.

[3] Using Fisher's Exact Test (Siegel, 1956).

[4] Because cell sizes are not proportional, these effects are not orthogonal. In each case the effect is tested after allowing for the influence of all other effects.

[5] At six, girls' discussions are shorter than boys' discussions; at nine they are longer.

*$p<.05$
**$p<.01$
***$p<.005$

the discussions of the nine year olds are significantly less strongly marked as part of the story mode: the six year olds are more likely to respond in the past tense, to use a formal opening and closing, and to include quoted dialogue (table 22). The younger children also tend to offer longer, less 'summary' discussions. As with the global categorizations, there are also quite consistent differences between responses to the two requests: the discussions of 'Little Red Riding Hood' are shorter and less clearly marked as story-telling. The request to "Tell me about..." seems to predispose the child toward retelling, while asking "What is it about..." leads naturally to responses beginning, "It is about...." At the same time, though 'Little Red Riding Hood' is a story with which all of the children are familiar, each child's favourite story is one with which he is more familiar, and hence able to retell more fully.

When the results are further broken down on the basis of the global categorization of level of discussion, retelling, 'synopsis', and 'summarization' also differ significantly from one another on all seven of these variables. Retellings are longer and more consistently marked with the formal characteristics of the story mode than are summaries, with synopses in a transitional position (table 23). It is interesting that for both favourite stories and 'Little Red Riding Hood', T-units are longest for synopses and relatively short for the developmentally more advanced summaries. This reflects the categorization inherent in the summaries, which allows the child to make considerable use of a simple "The story is____" sentence frame. This may explain the significant age by story ('tale') interaction for T-unit length in table 22: initial summary responses to 'Little Red Riding Hood' were followed up with "What happens in it?", which at nine often led to an expansion of the summary into a synopsis. This produces a corresponding increase in average T-unit length for the older children discussing "Little Red Riding Hood," but not for those discussing their favourite story (which was not prompted).

Table 23: Formal Characteristics of Various Levels in Discussing a Favourite Story or "Little Red Riding Hood"

	Percent of Students						
	Retelling		Any Synopsis		Any Summary		
Characteristic	Fav. (n=15)	LRRH (n=12)	Fav. (n=17)	LRRH (n=18)	Fav. (n= 6)	LRRH (n=13)	Chi-square[1]
1. Tense:							
past	100.0%	91.7%	76.5%	0.0%	0.0%	15.4%	37.30***
mixed[2]	-	8.3	-	27.8	-	7.7	(df=2)
present	0.0	0.0	23.5	72.2	100.0	76.9	
2. Formal opening:							
yes	60.0	8.3	11.8	0.0	0.0	0.0	13.32***
no	40.0	91.7	88.2	100.0	100.0	100.0	(df=1)
3. Formal closing:							
yes	40.0	8.3	0.0	11.1	0.0	0.0	6.89**
no	60.0	91.7	100.0	88.9	100.0	100.0	(df=1)
4. Dialogue:							
quoted	93.3	83.3	17.6	11.1	0.0	7.7	47.13***
described[2]	-	0.0	-	44.4	-	0.0	(df=2)
none	6.7	16.7	82.4	44.4	100.0	92.3	
	Averages						
5. No. of words	248.1	145.5	184.0	80.0	43.3	24.5	
6. No. of T-units	37.8	19.6	21.7	9.8	6.1	4.0	
7. Words/T-unit	6.6	7.7	8.3	8.1	6.6	6.0	

Multivariate Analysis of Variance, Variables 5, 6, and 7[3]

Effect		df	F-Statistic	Univariate Effects (.05)
Level:	root 1	6;136	12.56***	5,6,7
	root 2	2;68.5	5.82***	
Tale		3;68	8.50***	5,6
Interaction:	root 1	6;136	3.16***	6
	root 2	2;68.5	2.82	

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[1] Test of differences between levels of discussion, stories pooled. Categories combined to raise expected frequencies to appropriate levels: for tense, mixed+present; for opening and closing, synopsis+summary; for dialogue, described+none.

[2] This distinction was not made in scoring discussions of favourite stories.

[3] Because cell sizes are not proportional, these effects are not orthogonal. In each case the effect is tested after allowing for the influence of the other effect. Since there are 3 categories for levels of discussion, the multivariate test has 2 independent roots for the corresponding effects.

*p<.05
**p<.01
***p<.005

Retelling an Unfamiliar Story

The retelling of a story is clearly an important mode of response for the younger children, and continues as a possible mode of response even for the nine year olds studied here. To investigate it further, children receiving the second interview schedule were also read John Godfrey Saxe's version of "The Blind Men and the Elephant." This is a rhymed fable in eight stanzas,[12] the middle six of which each describes the reaction of a blind man to his encounter with an elephant. The first blind man, for example, stumbles against the elephant's side and declares, "God bless me, but the elephant is very like a wall." In this version the poem is quite difficult for children even at nine, especially as administered with a single reading and no accompanying pictures or explanation. The language is bizarre and there is no real plot or narrative structure to lead the child from one incident to the next; incidents could be rearranged without affecting the poem's sense and meaningfulness.

The poem was introduced to be listened to carefully so that it could be talked about afterward. It was then read to the child, and followed by a general question asking what it was 'about' and then a number of specific 'comprehension' questions. Finally, each child was asked to tell the story back again. These retellings were scored for the number of incidents and of details repeated, on the basis of a more or less arbitrary division of the original poem into one incident for each blind man, and 52 specific details (cf. appendix III).

On a task such as this, the older children should be better at both comprehending and repeating back the story; this was consistently the case but is relatively uninteresting. More important is the extent to which the fable provides evidence about the general question of how

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[12] A ninth stanza drawing an explicit moral with even more advanced vocabulary was omitted for the present investigation; a copy of the full poem is included in appendix IV.

Table 24: Characteristics of Retellings of an Unfamiliar Fable

Characteristic	Percent		Chi-square[1]
	Age 6 (n=22)	Age 9 (n=22)	(df=1)
1. Consistent past tense	77.3%	100.0%	$p< .05$
2. Formal opening	9.1	59.1	10.12***
3. Formal closing	4.5	0.0	nsd
4. Use of dialogue	22.7	27.3	0.00
5. Use of parallel structures	59.1	90.9	4.36*
6. Assimilation to own world	27.3	27.3	0.00
7. Retelling of ending	0.0	36.4	7.49
8. Retelling of "blind"	40.9	54.5	0.36
9. Time sequence: okay	9.1	50.0	12.55***
jumbled	31.8	36.4	(df=2)
indeterminate	59.1	13.6	
10. Three or more incidents retold[2]	22.7	63.6	5.93**
	Average		F-Statistic[3]
11. Number of details retold	6.7	15.9	25.14*** (df=1;40)

[1] Test of age differences. There are no significant differences between the sexes on variables 1 to 10, using chi-square tests with ages pooled. Fisher's Exact Test was used where only probabilities are given.

[2] Median Test on number of incidents (out of 6) retold.

[3] From two-factor (age x sex) analysis of variance. F for sex = 0.48, nsd; F for interactions = 0.06, nsd.

*$p<.05$, two-tailed
**$p<.01$
***$p<.005$

the child goes about the task of responding with a repetition of a story. Bartlett (1932) has found that a similar task with older subjects is one highly productive method in the study of memory; he concluded that such narratives are in fact recreated by the teller rather than simply repeated. Though this was not a major focus of the present investigation, some evidence relevant to the general hypothesis was collected. Table 24 summarizes the general characteristics of the retellings at six and nine. Those scores for which the age differences are significant generally reflect the difference in the ability of the two age-groups to manage the task at all. The 23 percent of the six year olds who do not use the past tense, for example, are children who find the task virtually impossible; none actually offered an extended present-tense discussion. The lack of formal closings at either age is related to the fable itself: it ends with the statement that "each of them was partly right, and all of them were wrong," rather than with a formal closing of the type that would have been scored here. The relatively low use of dialogue at both ages is probably also a function of the particular fable. Though each of the six blind men does declare what the elephant is, these comments are offered as monologue; most of the story repetitions simply report it back as "The first blind man said that the elephant was like a...," rather than using a dialogue form. The maintenance of the time sequence of the original is surprisingly good, with only about a third clearly jumbled at each age; since there is no evident logic in the ordering of events within the fable, this is probably a function of short-term memory. (The large number of 'indeterminate' responses at six results because so many children are unable to repeat more than one incident.)[13]

If a story is reconstructed rather than simply repeated by rote, then a child should be more likely to repeat those parts of the story that he has understood and to leave out those parts which have been incompletely assimilated. To investigate this, the 'comprehension' questions sampled understanding of several details which were later noted as repeated or not repeated in the course of the retelling. These included the fact that the men were 'blind', that they were "to learning much inclined," and the ending which proclaimed that "each was partly in the right, and all of them were wrong." None of the children at either six or nine repeated "to learning much inclined," so that fell out of the analysis. Of the 13 who were able to give a reasonable explanation of the ending, 46.2 percent also retold one or another version of it, compared with only 6.5 percent of those 31 children who were not able to explain the ending. All of the nine year olds knew what blind meant, but of the 5 six year olds who did not, all but one left it out in the retelling (compared with 52.9 percent of the 17 who did know what blind means). The difference for retelling the ending is highly significant, that for blind, though in the predicted direction, is not.[14]

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[13] The responses are also of some interest as a contrast to the discussions of "Little Red Riding Hood" by the same children. This comparison is vitiated, however, by the extreme difficulty which the younger children have with the task. Even so, at both six and nine they are significantly more likely to use the past tense when asked to 'tell...' than when they are asked to 'tell about...', using McNemar's test of the significance of changes (.008 and .001 levels at six and nine, respectively). Comparisons of dialogue, openings, and closings are precluded because none of them are as important in the fable as in the story; this difference is thus confounded with the contrast of interest, between 'telling' and 'telling about'.

Two other aspects of the data in table 24 are particularly interesting. One is the proportion of retellings which give direct evidence of assimilation of the fable to the child's world. This is a count of the number of retellings which show clear shifts in the content of the fable to bring it more into line with the child's system of expectations; it is not concerned with the pervasive phenomenon of paraphrase and recasting within the child's accustomed syntactic and semantic frame. These assimilations, occurring in just over a quarter of the retellings at both ages, are highly idiosyncratic; they range from Bruce B. (9;7) who transforms the "six men of Indostan" into "tourists", to Alec T. (5;10) who virtually starts over again:

> Now tell me the story again.--I don't remember it, I don't know.--Tell me what you remember. I know you only heard it once so you won't remember all of it.--I think I don't know.--What was it about?--I don't know about the story.--Who was it about?--I know what it was about. It was about an elephant.--What happened in it?--They killed it.--Then what happened?--They went, then they went away and saw another elephant and they k-, they didn't kill that one because that wasn't the same. It was a baby one.--Then what happened?--The elephant, the baby elephant took them to the elephant camp.--And then what happened?--When they was goin' home the rest of the elephants gave them a ride home.--Is that the story I just read you?--Some of it is.--Which is the story I read you?--Don't know.--Can you tell me the story I read you?--I don't know that. I forgot all about that one.--What can you remember about it?--I remember that a, they said it was a fair and they said it was, the

---

[14] Chi-square for ending = 7.22, df=1, p<.007, two-tailed; Exact Test for blind, using Siegel's (1956) tables, nsd.

> first man said it was, I think he said it was a, bush, no, it could be a bush, he could of said it was a bush. (long pause)--Um, how did it end?--Happily ending and the elephant came friends with the two men.
>
> --Alec T., (5;10)

The other score of considerable interest is the use of parallel linguistic structures as a device around which to build the retold versions of the fable. In the original, there are 6 parallel incidents, each involving one blind man encountering the elephant and declaring firmly his belief about what the elephant is like. Each of these incidents is presented in a different stanza, and each stanza has a unique internal linguistic structure; they are not related one to another simply by word substitutions. In the retellings, however, virtually all of the children who managed the task even somewhat successfully assimilated the structural parallelism between these 6 incidents to a simple linguistic one: "One man thought the elephant was like a wall. One man thought the elephant was like a snake. One man thought...." (There is a partial model for this in the last line of each stanza, which takes the form "the elephant is very like a ______," but none of the children use this formulation.)

What process does all of this represent? Simply put, the children seem to form patterns of expectations about the fable out of an amalgam of their previous experience and what they understand about the fable itself during their brief encounter with it. Then, like the younger children telling stories of their own in the Pitcher and Prelinger (1963) collection, they 'tell it back' by conforming as closely as they can to these patterns of expectations, filling out their specific memories of the fable with their general expectations about stories and language. The present data do not 'prove' this interpretation, but they reinforce it, and as such, remain consistent with the general theory outlined in earlier chapters.

Categorization of Story Characters

In discussing the nine year olds' use of summarization in responding to stories, we suggested that those responses involved more 'categorization' than did the answers from the younger children. The series of questions on the roles of common story characters, discussed from another perspective in chapter IV, throw further light on this point. In that series, six and nine year olds were asked what a lion, wolf, rabbit, fox, fairy, and witch in a story were 'usually like', after being reminded that a turtle in a story is 'usually very slow'. As well as being scored for evidence of knowledge of the roles these characters usually play, responses were also scored for the way in which they summarized the roles. Two major categories of response were noted: one, directly paralleling the 'retellings' in the discussions of stories, described one or another incident in which each [illegible] the character-types participated; the other 'categorized' the character into a role summarized with an adjective. Frederick's response is typical of those which concentrated on actions, Robert's of those which categorized the characters:

> What is a lion in a story usually like?--It catches people.--What is a wolf in a story usually like?--Eats people.--How about a rabbit? What is a rabbit in a story usually like?--It jumps about, in the air.--What is a fox in a story usually like?--It was in the sea.--A fox. What is a fox in a story like?--We hear a story about a fox, and it was in the sea.--What about a fairy in a story?--Kills people.--A fairy? What is she like in a story?--Gives people clothes.--What about a witch in a story?--They're horrible.
>
> --Frederick C., 6;1

> What is a lion in a story usually like?--Outrageous.--Outrageous? How do you mean?--Really angry.--What is a wolf in a story usually like?--Annoying.--What does it mean to be annoying?--He jumps up at you.--How about a rabbit? What is a rabbit in a story usually like?--Nice.--How about a fox? What is a fox in a story usually like?--Terrible.--What is a fairy in a story usually like?--Calm.--And a witch? What is a witch in a story usually like?--Terrible.--What does she do?--Turn you into rabbits.
>
> --Robert W., 9;2

Dropping four six year olds who did not have firm enough expectations about the roles to respond at all, 72.2 percent of the remainder at six but only

36.4 percent of the children at nine responded with actions rather than with some form of summarization.[15] This result is strikingly similar to that for discussions of stories as a whole: citing of incidents dominates at the preoperational stage and categorization emerges in the group which should be biased toward concrete operational modes of thinking.

5. The Ability to Generalize

The shift from simple retelling and summarization by the younger children toward analysis and generalization by the adolescent seems to have at its heart the recognition that a discourse may operate at more than one level of meaning. The young child's simple concern with the action suggests that to him the story remains largely a patterning of events; the early adolescent's ability to analyse reflects the recognition that this pattern has a purpose and conscious ordering; while the generalizing responses of the older students studied take the work as representative of a broader theme or message. To explore the extent to which these differences in preferred mode of discussion parallel differences in the ability to draw generalized meaning from a work, another series of questions were based around common sayings. Kenneth Burke (1957, pp. 253 ff.) has treated proverbs as the prototypical literary form; without making that strong a claim, the present investigation does assume that the way in which common sayings are understood will be directly related to the way in which more complex spectator-role language is conceptualized. Each interview schedule used with the six and nine year olds included one saying for the child to explain: "You must have gotten out of the wrong side of the bed this morning" was used in the first interview schedule, "When the cat is away, the mice will play" in the second. Both of these have a literal and a general meaning, but in the first this general meaning is less clearly related by generalization from the concrete situation; its meaning seems more socially negotiated than individually arrived at. In general, children below the age of eleven or twelve are not successful in specifying adult meanings for such sayings (cf. Piaget, 1926; Watts, 1944), but granted that, the present study is concerned with how they are understood from the child's point of view.

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[15] Chi-square for age = 3.77, df=1, $p < .05$, two-tailed. Chi-square for sex = 0.11, df=1, nsd. Responses scored under 'summarization' had an equal or better mix of action and summary for the 6 characters.

Responses at Six and Nine: Literal Interpretation

Table 25 summarizes the results from this series of questions. At six, the children quite uniformly interpret the sayings literally, or simply refuse to answer. The following are typical literal interpretations of the wrong side of the bed:

> *I never get out of the wrong side of the bed.*--You don't? What is the wrong side?--*Inside.*
>
> --Nicole H., 6;0

> *But I don't! I go around to the right side.*
>
> --Eric M., 6;1

> *No, I haven't.*--What would it mean if someone said it to you though?--*They'd be telling me wrong.*
>
> --Sam C., 5;9

"What the cat is away, the mice will play" tended to produce longer but equally literal answers; it also provided an opportunity to push the children a bit about its possible relevance to people:

> *The cat is shopping, and the cat likes the mouse.*--Could it mean something about children?--*The children have a mouse and a cat.*
>
> --Colin C., 5;11

> *That means the mice will play all over the room and look for cheese. And when the cat comes back he'll hurry right in his hole.*--Could it mean anything about children?--*One child's got a cat and one child's got a mouse.*
>
> --Terrence P., 5;10

> *Cause when the cat's not there the mouse come out, and the cat eat the mice.*--Could it mean anything about children?--*No.*
>
> --Sarah L., 5;9

Such literal interpretations are offered by 50.0 percent of the six year olds in response to the wrong side of the bed, and by 86.4 percent in response to the cat and mouse. None of the six year olds offer a more

Table 25: Explanations of Familiar Sayings at Six and Nine

"You must have gotten out of the wrong side of the bed this morning."

	Age 6 (n=22)	Age 9 (n=22)	Chi-square[1]
a. Don't know	50.0%	31.8%	23.22***
b. Literal	50.0	4.5	(df=2)
c. Any understanding	0.0	63.6	

"When the cat is away, the mice will play."

	Age 6 (n=22)	Age 9 (n=22)	Chi-square[1]
a. Don't know	13.6%	9.1%	nsd[2]
b. Literal	86.4	81.8	(b vs. c)
c. Any understanding	0.0	9.1	

"Could 'When the cat is away, the mice will play' mean anything about people?"[3]

	Age 6 (n=22)	Age 9 (n=22)	Chi-square[1]
a. No, or don't know	90.9%	72.7%	1.38
b. Any understanding	9.1	27.3	(df=1)

[1] Test of age differences. There are no significant differences between the sexes on these variables, using chi-square tests with ages pooled.

[2] Using Fisher's Exact Test.

[3] This was asked as a follow up to the initial response; children who initially applied the saying to people are included here under 'any understanding'. The difference in the degree to which the six and nine year olds alter their response after this follow-up is not significant (chi-square = 0.13, df = 1), but pooling results for both ages, the question does raise the overall degree of understanding (chi-square = 6.13*, df=1).

*$p < .05$
**$p < .01$
***$p < .005$

generalized meaning; the source of the difference in responses to the two sayings lies in the number who think they understand at all.[16]

By nine, the children are beginning to show some understanding of the first saying, but there is little change for the cat and mice. Answers dealing with the wrong side of the bed vary, but most are related to the situation of having slept poorly:

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[16] The difference in the number of children responding to each saying at age six is significant at the .05 level; chi-square = 5.13, df=1, two-tailed.

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You're not awake yet.
--Robert W., 9;2

Dosy.
--Frank M., 10;1

The person who got out is angry with people.
--Deborah P., 9;3

You're grumpy.
--Helen A., 10;1

Only a few children have begun to move away from the literal on the other saying:

> It means if somebody is away, the other person will do something they're not supposed to.--Does it mean anything about cats and mice?--No, not really.
> --Doreen B., 10;0
>
> Cause when the cat is away, when the cat is here the mice don't come out cause they know the cat would eat them but when the cat is away they always come out and play.--Do you think it might mean something about children?--Pardon?--Do you think it might mean something about children?--Yes. Because sometimes they have fights and if they have a fight they know that somebody wants to do it again they don't want to come out, but if they're away they want to come out.
> --Belgin C., 9;2

Such responses are very rare; only 9 percent of the nine year olds give them without prompting, and even with prompting the figure rises only to 27 percent. For the first saying, on the other hand, some 64 percent have begun to cite a more generalized meaning. The difference in the proportion of children who move beyond the literal level in response to each saying is highly significant,[17] but the explanation is unclear. It may be that the discomfort the six year olds feel at the illogicality of getting out of the wrong side of the bed pushes the older children to look beyond the immediately available literal answer. On the other hand, it may be that the generally accepted meaning is itself situationally derived, based on a loose association between sleeping poorly, 'wrong' beds, and poor behavior. This type of reasoning does become accessible during the concrete operational period, and should be available to many of the nine year olds in our samples. More evidence is needed to fully untangle the differences, but it would not be surprising to find that both the illogicality of the literal interpretation and the availability of the situationally-based one contribute to the results.

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[17] Chi-square for differences between the sayings at age nine = 11.88, df=1, $p < .001$, two-tailed.

Changes from Nine to Seventeen: Exemplification and Generalization

A parallel series of questions was included in the questionnaires used with older students. For this series, "You must have gotten out of the wrong side of the bed this morning" was replaced with "Birds of a feather flock together"; this and "When the cat is away, the mice will play" were presented at the end of the questionnaire, with the general instruction, "What does each of the following sayings mean?"

Written responses at nine are very similar to those in the interviews: the majority of the children give a literal explanation of the situation depicted (table 26, below).[18] Whereas the cat and mice saying is more difficult than that about the wrong side of the bed, it is significantly simpler than "Birds of a feather flock together." For this last, some 33 percent of the nine year olds give no response at all, compared with only 7 percent for the cat and mice. In the older age groups, two new sorts of responses come into prominence. In table 26, one of these is labelled 'exemplification', the other 'generalization'. Exemplifications are responses which are based primarily on analogy: the situation described in the saying is seen as analogous to some other, quite different situation. For the cat and mice, for example, the student may simply substitute teacher and pupils, homeowner and burglars, parents and children. Often this concrete example is qualified with "it

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[18] The oral and written responses to "When the cat is away, the mice will play" at age nine are based on separate samples of children, and do not differ from one another in either the proportion giving no response, or the proportion showing 'any understanding', using Fisher's Exact Test (Siegel, 1956).

Table 26: Explanations of Familiar Sayings from Nine to Seventeen

	Percent of Students			
	Comprehensive School		Selective Schools	
	Age 9 (n=30)	Age 13 (n=30)	Age 13 (n=20)	Age 17 (n=20)
	"When the cat is away, the mice will play."			
a. Don't know	6.7%	10.0%	5.0%	5.0%
b. Literal	86.7	3.3	15.0	5.0
c. Exemplification	6.7	83.3	70.0	5.0
d. Generalization	0.0	3.3	10.0	85.0
	"Birds of a feather flock together."			
a. Don't know	33.3%	26.7%	15.0%	5.0%
b. Literal	60.0	3.3	0.0	0.0
c. Exemplification	6.7	26.7	50.0	5.0
d. Generalization	0.0	43.3	35.0	90.0
	Both Sayings			
a. Same level of response to both	66.7%	43.3%	50.0%	90.0%
b. Higher for cat and mice	30.0	16.7	15.0	0.0
c. Higher for birds of a feather	3.3	40.0	35.0	10.0
McNemar's Test of Difference Between the Sayings:	4.90*	2.17	0.90	nsd[1]

Chi-Square for Age Differences[2]	9 vs. 13	13 vs. 13	13 vs. 17
Cat and mice	33.42***	0.06	19.87***
Comparing categories	(b,c+d)	(a+b,c+d)	(c,d)
	df=1	df=1	df=1
Birds of a feather	32.03***	3.15	9.74***
Comparing categories	(a,b,c,d)	(a+b,c,d)	(c,d)
	df=3	df=2	df=1

[1] Binomial test, following Siegel (1956) for small expected frequencies.

[2] There are no significant differences between the sexes for either saying, using chi-square tests with ages pooled.

*$p < .05$
**$p < .01$
***$p < .005$

is like when...," with the implication that the student recognizes that his example is only one of a larger set of possible substitutions. Still, the explanation remains tied to one or another specific situation rather than moving to some sort of generalization which would encompass all of them. The following are typical answers of this type:

When the cat is away, the mice will play:

Means that when masters are near we all stay quiet and polite and vice-versa. (Barry D., 13;2)

Means that when the parents are away you can have some fun. (Edward S., 13;4)

It means that with no danger around you can enjoy yourselves. (Noam R., 13;7)

It means like when your parents go out you get out the whiskey, and get out the biscuits and eat them. (Harold H., 13;3)

I.e., if a teacher goes out of a class the class will probably instead of working muck about. (Diana L., 13;6)

When the teacher goes out the children shout. (Gail H., 13;10)

The mice represent perhaps some burglars or other criminal persons waiting for the guards or other authoritative persons to go so they can steel or othet such criminal action the jewels or other such valuables. The guards being the cats. (Kurt J., 13;6)

Birds of a feather flock together:

If a man is in need of help, other men of the same faith or religion will help. (Ronald H., 13;4)

Bad people stick together and good people stick together. (Elaine G., 14;2)

Animals of the same kind flock together, this is true, e.g., Pelicans, Lions, Penguins, and sometimes human beings e.g. Hells angels, Gangs of youths, having the same crazes, and to fight other youths who they think follow a stupid craze. The upper classes are separated from the poor and some would never think of mixing. (Vincent M., 13;8)

In contrast with this concrete understanding-by-analogy, another set of responses provide a generalized formulation of the meaning of the sayings. Again, the following are typical of many others:

When the cat is away, the mice will play:

When restrictions are lifted, behavior may become a little bizarre. (Charles G., 18;2)

When authority is absent, then the natural order of things begins to break out. (Orlando F., 17;2)

When there is no governing force, e.g. fear, over life, one is free to do as one chooses. (Winifred S., 17;5)

Offered complete freedom, the previously oppressed will take advantage of it. (Beatrice F., 16;10)

Birds of a feather flock together:

People with similarities tend to congregate.
(Charles G., 18;2)

People with similar interests, attractions, etc. often herd together.
(Nigel L., 17;10)

Similar people (similar in any way) tend to get together either out of inclination or expediency.
(Gary R., 18;7)

In life people automatically move towards those with the same characteristics as themselves.
(Winifred S., 17;5)

Any group of people who have something in common tend to come together for that reason. (Alice H., 16;5)

This movement toward a generalized statement often loses the vividness and immediacy of the exemplification; it was to give some feeling of this that the examples in the two lists were multiplied. This loss of uniqueness carries with it a corresponding gain in efficiency and in interpersonal consistency. One formulation of the meaning is not only able to subsume a whole range of alternative concrete phrasings, but also tends to be much closer to the phrasing that other people use. Still, what is being called 'exemplification' in coding these responses should not be down-graded; the students giving this type of answer quite clearly 'know what it means' to use the sayings, and may also have begun to see the meaning in the stories and poems they read and write as embodying a similar 'concrete abstraction'.

Table 26 shows very clear age trends in the use of these types of response. For the cat and mice saying, by thirteen almost all are giving an exemplification, in both the comprehensive and the selective school settings. By seventeen, this is replaced by an almost universal generalized response. "Birds of a feather..." shows less tendency to lead to exemplification; at thirteen there are both a higher proportion of students who give a generalized answer and a higher proportion who do not know what it means at all. By seventeen, responses to the two sayings again come into balance, with generalized formulations dominating for both.

The intercession of exemplification between the literal interpretation and the fully generalized one may be relevant to the earlier finding that students at thirteen are much more likely to use analysis than to use generalization in discussing stories, even though both operations are dependent upon the acquisition of formal operational schemata. The present data suggest that the generalized formulation--which is similar to the problem in formulating discussions of 'theme' or 'message'--is quite difficult, and emerges naturally only after an intermediary stage of relating the statement to other similar situations. This intermediary stage, however, is one which has little equivalent in our traditional modes of discussing literary works; rarely, unless we ask for another spectator-role discourse in response, do we give students a chance to make this sort of connection between the experience of the work and other experiences with which they may be familiar. We might expect, in fact, that by thirteen they could make such direct analogies quite easily, but since it is not what they are expected to do in writing about literature, they have not done it spontaneously in the course of answering the present set of questions. If this is the case, the emergence of analysis without generalization in so many of the essays would not be because the students are analysing but not generalizing, but because their generalizations are not in a form that they have been encouraged to consider appropriate to written response.[19]

Responses to the two sayings differ significantly from one another for the nine year olds, and also significantly but in the opposite direction for all of the thirteen and seventeen year olds pooled.[20] This seems to be because the second saying is more obscure than the first, raising vocabulary problems (especially for 'flock') and providing a less clear concrete situation to which analogies might be drawn. The greater proportion of generalized explanations may even be an artifact, in that the most common formulation of the generalized explanation, "People who are alike are attracted to one another," is also likely to result from a concrete approach-by-analogy or exemplification. Again, more data would be needed to fully untangle the various threads.

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[19] This sort of response by analogy or exemplification is more likely to be encouraged in speech than in writing. This is usually defended as 'making it relevant' or 'seeing connections', but perhaps it should be given a more respectable function and encouraged more freely in writing as well as in speech at this age.

It is worth noting, too, the extent to which all of the explanations except 'don't know' do represent a response which it is reasonable to call understanding. The children at each age do have a characteristic way of approaching discourse in the spectator role, an approach presumably controlled by an underlying set of constitutive rules which validates the resulting formulations as reasonable and appropriate. The adult and the child approach their tasks in very different ways, but the child's approach is merely different; it serves little purpose to call it wrong.

6. Related Research

Several previous studies provide some independent confirmation of the sorts of trends we have been describing. Gardner and Gardner (1971) have also used a retelling procedure as an approach to children's literary skills. They sampled 12 students at six, eight, eleven/twelve, and fourteen/fifteen years; the children at each age listened to and later completed a story of about 300 words in length, and then repeated it to a second investigator. At that point the whole procedure was repeated with a second incomplete story in a markedly divergent style. Of more interest to us than the specific age-changes which were reported are the global impressions presented discursively though not directly quantified. In particular, Gardner and Gardner (1971) found that six year olds treat the stories as though they are comic strips, requiring but one additional line to complete the narrative. These lines are "less inappropriate than incomplete"; they reflect the immediately preceding lines rather than the forces extant in the narrative as a whole. By eight, children "interpret the task as an occasion to list a long series of events involving a hero. Often these episodes are borrowed from other stories and may be inappropriate....!" These responses seem related to concrete operational modes of thought, with the children attempting to satisfy the investigators' demands out of their set of 'known endings' to stories; they are still not able to extrapolate beyond the story in a systematic, consistent way. The Gardners were most impressed with the performance of their eleven to twelve year old students, who provide endings which are both imaginative and consistent with the drift of the story as a whole. With the oldest sample there is the same overall control, but there is more self-consciousness and uniformity in the renditions offered. The Gardners suggest that this may represent a curtailment of literary growth as a result of heightened critical self-awareness, but it is possible to see this instead as comparable to the shift from exemplification to generalization in response to the sayings in the present study.

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[20] Chi-square for thirteen and seventeen year olds pooled = 4.97, df=1, $p < .05$. Comparisons for each age separately are reported in table 26.

There are a few other sets of evidence which can be brought to bear upon these issues. One of the most interesting is Eliot Freidson's (1953) descriptive account of his investigations of children's responses to television drama. Studying American children in kindergarten, second grade, fourth grade, and sixth grade, he found shifts very similar to those already discussed. With the younger children in his samples, "the total plot is weighed only to the extent that it contains incidents that actually elicit excitement." There is little structure to this response, which is "at its most coherent a patchwork of discrete events that are exciting." By fourth grade, the plot has begun to be treated as "combinations of events," whose parts can be contrasted with one another and understood as a set. These are combinations after-the-fact, however; it is not until sixth grade that Freidson finds evidence of an ability to *predict* what will happen even in highly stylized stories, and the beginning of an extension of this ability to other narrative forms.

There is considerable other evidence that this ability to predict what will happen next is quite late in developing, emerging only with the acquisition of formal operational thought processes in early adolescence. DeBoer (1938), for example, used the galvanic skin response to study children's reactions to radio drama, and found that young children respond to each incident separately, with no rise or fall of interest over long stretches of the plot. Adolescents, on the other hand, show a steady rise in response over the later stages of the plot. As one result, they have a much more vigorous reaction to surprise endings. (For the younger children, who have made no predictions, there is nothing special about these 'unexpected' changes of direction.)

Several investigators have studied this ability to draw implications beyond the story by eliciting responses to incomplete or specially structured narrative material. McCreech (1970) presented 20 children at nine, thirteen, and fifteen years with 13 descriptive accounts of tragic events in everyday life, followed by "Who do you feel sorry for in this story? Why do you feel sorry?" Dividing responses into those in which awareness of consequences was restricted to what was actually depicted and those in which it generalized to consequences not portrayed in the story itself, McCreech found no significant differences in *whom* the children felt sorry for, but a significant shift in *why* they felt sorry. The fifteen year olds consistently showed a more generalized awareness in contrast with the nine year olds, with the thirteen year olds varying from story to story. Other studies reported by Goldman (1965), Peel (1959), and Case and Collinson (1962) have obtained similar results with Biblical, historical, and other narrative material: before about the age of thirteen, children show very little ability to go beyond the immediately given, though they do recognize correspondences and causal relationships within the bounds of the given situation.

Finally, we need to consider briefly the international study of achievement in literature (Purves, Foshay, and Hansson, 1973). This study was sponsored as part of the International Association for the Evaluation of Educational Achievement's (I.E.A.) six-subject, cross-national study of achievement; it involved large samples in nine countries of quite varied linguistic, educational, and socioeconomic backgrounds.[21] Instrumentation and research design were coordinated by an international steering committee aided by a national coordinating committee in each of the cooperating countries. In each country two populations were sampled: fourteen year olds and students in their pre-university year (roughly seventeen, but varying from country to country). One of the instruments used in all countries was a multiple-choice questionnaire based on the Purves-Rippere (1968) categories; this was chosen as a reasonably valid and easily scored measure of literary response. Basically, it involved a rating scale of 20 items chosen to represent various elements in the Purves-Rippere system. Typical items for William Carlos Williams' short story, "The Use of Force," included:

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[21] The nine countries were Belgium, Chile, England, Finland, Iran, Italy, New Zealand, Sweden, and the United States; the partition of Belgium into French-speaking and Flemish-speaking samples created ten populations that were separately studied. Sample sizes varied from country to country and age-group to age-group. Flemish-speaking Belgium at the pre-university grade had the smallest representation with 464 students; Italy at the pre-university grade had the largest with 14,204 students. Translation of the various tests and questionnaires was carefully controlled to insure cross-national consistency.

Is there a lesson to be learned from "The Use of Force"? (Moral Interpretation)

How can we explain the way the people behave in the story? (Interpretation of content)

What happens in "The Use of Force"? (Perception of Content)

Students were asked to answer this questionnaire three times: once about stories in general, once about "The Use of Force," and once about a second story (one of three randomly rotated among students in a school). Each time, they were asked to choose the five questions "that you think are the most appropriate to ask" about the story. These choices were then used to build profiles of response preferences for the various samples of students.

Of most interest in the many results reported are patterns for the two age groups as they emerged across national boundaries. There are of course strong national differences, allowing the investigators to conclude that literary response is in substantial part learned, but what seems to be most strongly influenced by patterns of schooling is the preferred mode of literary criticism. In England, for example, there is some evidence in the pre-university sample of an 'aesthetic' and a separate 'affective-interpretative' cluster of responses, while in the United States there are separate 'moral-symbolic' and 'affective-moral' clusters. In general, the older samples have more firmly defined patterns of preferences than the fourteen year old samples, though it is difficult to know the extent to which this is developmental, reflecting changes with age in consistency of response, or a product of the selectivity of the older group in comparison with the younger in most countries. In this respect, it is interesting that in the United States, with a higher proportion of students remaining in school through the pre-university grade, there is a fairly well-established pattern of preference in both populations, with little difference between them.

In spite of specific national differences, the I.E.A. study found a "remarkable commonality" in the preference patterns for the pre-university samples, all of which show a tendency toward formal and thematic responses--or in the terms of the present study, toward analysis and generalization. This is particularly clear in looking at those students who, across all populations sampled, received a score of better than 27 out of 36 on a separate achievement measure. In a sense, this group represents those students whose level of response could be expected to be most advanced; their preferences were: 1) "Is there anything in the story that has a hidden meaning?" (chosen by 52 percent); 2) "What emotions does the story arouse in me?" (48 percent); 3) "How can we explain the way the characters behave?" (46 percent); 4) "Is the story about important things? Is it trivial or serious?" (36 percent); and 5) "Is there a lesson to be learned from the story?" (31 percent). All five of these preferred responses of advanced students reflect generalizing from or analysis of the work, a finding which parallels the emergence of these response modes in the oldest of the samples studied here.

7. Summary

These analyses have carried us quite a long way toward formulating a developmental model of response. We have been able to find characteristically different ways of discussing a work in our various samples, and have been able to loosely relate these modes of discussion to Piaget's descriptions of developmental stages in modes of thinking. To a certain extent, however, this has been achieved by sleight-of-hand: a whole group of responses reflecting evaluation and engagement have been set aside and ignored. These will be taken up in the next chapter and will lead to an important amplification of the model that has been emerging here. A final summary statement of the model itself will therefore be deferred until that investigation, too, is complete.

CHAPTER VIII

THE NATURE OF EVALUATION

1. Introduction

In deriving the stages of literary response in the previous chapter, responses which might be called 'evaluative' were more or less ignored. Here we will argue that that approach was not simply a useful expedient, but one that is in fact a natural outcome of the way in which evaluation is best conceptualized. We will also find, however, that these primarily evaluative responses highlight another aspect of response which has hitherto been overlooked, but which will be an important part of our final model of stages in the development of response.

Purves and Rippere (1968) treat evaluation as a major and separate response category, with a status equivalent to that of their other categories of engagement, perception, and interpretation. Other investigators have questioned this approach (cf. Cooper, 1969), and Purves and Rippere themselves abandon it when they move to the somewhat finer system of analysis by subcategory: their subcategories of 'affective evaluation', 'evaluation of method', and 'evaluation of author's vision' have a direct if not exact relationship to the major categories of engagement, perception, and interpretation.[1]

It is more profitable to recognize that evaluation is a very different sort of process than those reflected in what we have been calling 'description' of the work; rather than something separate from the descriptive response, evaluation is a process which subsumes it. In the adult, evaluation is ordinarily a superordinate construct, and one that is apparently of major importance in the organization of a person's system of construing. Not only are most things evaluated, but this evaluation structures and controls further categorization (and category search) in which the element may become involved (cf. Cermak, Sagotsky, and Moshier, 1972). In our present context of expressed response to literary works, this leads us to look not for evaluative responses that are separate from descriptive ones (or in Purves and Rippere's system, from engagement, perception, and interpretation), but for the extent to which descriptive responses carry an implicit or explicit, positive or negative evaluative marking as well. If this is a realistic approach, responses which might have been separated out as 'evaluative' should show levels directly comparable to the levels of description outlined in the previous chapter; the evaluation would be nothing more than a further ordering of an initial descriptive response. (Conversely, it is useful to look at the extent to which responses which are unmarked for evaluation are nonetheless treated as part of the system of evaluation; this will be taken up in the next chapter.)

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[1] Purves and Rippere point this out in presenting their scoring system, but they do not develop the implications of their insight even to the point of making the subcategories exactly rather than roughly parallel. One of Cooper's (1969) high school juniors commented that the other three categories "are the points you would use to explain why you liked or disliked the story" (p. 140).

The attempt to study forms of evaluation in this way very quickly runs into the problem of how to handle Purves and Rippere's general category of 'engagement', or more particularly, the expressed reaction of the reader to the work. Responses which profess identification are archetypal examples of the sort of material being dealt with here, and highlight the difficulty: on the one hand they seem very different from the 'descriptive' responses dealt with earlier, and on the other hand they are not in themselves evaluative.[2] The scoring of essays for levels of discussion avoided this problem by treating the essays as wholes, so that analysis, summarization, and generalization could be based on the context within which engagement was expressed. This simply begs the question of what such a response 'really is'.

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[2] It is common enough to praise a book because one has felt 'involved' in it; on the other hand such involvement (rather than 'Reason') as part of literary response was Plato's main objection to poetry. If engagement were nothing more than evaluation, such a situation would be paradoxical.

Objective and Subjective Modes

The most productive approach here is to return to the distinction made in earlier chapters between what Susanne Langer (1967) has called 'objective' and 'subjective' modes of feeling. Subjective feeling is a response arising internally and personally; it can be felt, described, and even understood, but it cannot be shared. One of Langer's examples is a toothache: we can each have one, and understand one another's, but however much we may want to give it away, each particular toothache remains ours and no one elses. Objective feeling, on the other hand, is something felt as though it comes from outside of the person; the tacit component in the response is lower and there are external, publicly verifiable correlates. Visual perception is a good illustration of this process: though what we see is the product of internal electrochemical changes, there is a feeling of 'objectivity' in the visual response which the toothache never shares.

Subjective feeling arises within us; objective feeling has its source outside of us. Literary response involves both. The objective response to the work is essentially what the previous chapter discusses without quite reaching this formulation: it is concerned with the publicly verifiable characteristics of the work. These characteristics may range all the way from the precise details formulated in a retelling, to considerations of the theme or structure or point of view. Though the complexity of a work of literature may lead us to disagree about these characteristics, especially at the levels of analysis and generalization, these disagreements are ultimately disagreements about shared systems of rules for construing, about conventions of communication which are rarely explicitly formulated but which are, in theory, formulable.

The subjective response to a work, on the other hand, is the product of the interaction of the work with our particular system of constructs; the feeling that results is the product of an internal, personal, slow process of assimilation, a process which cannot in principle be described by publicly verifiable conventions. (We can agree on the characteristics of an adventure story, for example, but we will not be able to agree on which adventure story each of us will find most exciting.) This personal response also begins with the stimulus that the work provides, but it varies with the state of the total matrix of mind at the time of exposure--how tired we are feeling, what distractions there are, what problems are bothering us most. This subjective feeling aroused by a work has its own characteristic modes of expression, and by recognizing and separating them from those modes which express objective reactions to a work, we can begin to systematically untangle the various strands of response.

2. Developmental Stages in the Evaluation of Stories

During the course of discussing favourite stories and stories known well, some evaluation emerged spontaneously. The amount of evaluation fluctuated considerably from sample to sample, however, and provides only a limited basis for exploration of various forms. A second series of questions, specifically focussed on reasons for liking or not liking stories, provides a better starting point. During the first interview schedule, children were asked why they liked or did not like specific stories that they had earlier evaluated. On the open-ended questionnaires, a parallel question was phrased more generally as, "What reasons are there for liking a story or poem?" (A separate question asked for reasons for not liking stories or poems.) Again, the analysis began by categorizing the responses into the Purves-Rippere (1968) categories, in this case on the basis of reasons rather than of T-units. In a response of the form, "Reasons for liking stories are that they are exciting, well-written, or realistic," for example, each of the adjectives was separately categorized. This analysis very quickly ran into trouble: though the context of the question was such that all of the responses needed to be treated as evaluative, the variety in the responses made this limitation seem unrealistic. Rather than the limited number of 'evaluation' subcategories and elements, the responses had the same range that had emerged earlier in the analysis of the essays; all of the elements seemed relevant, except that now each was also marked with a positive or negative evaluation. Asked for reasons for liking, some children described incidents or summarized the plot, others professed involvement or engagement, still others analysed the style or theme of the work. At this point the attempt to use the Purves-Rippere (1968) system of analysis was abandoned, and a new system developed on the basis of the protocols and the results of the analysis of levels in discussions of stories.

Two dimensions were ultimately used to structure the analysis of evaluation. One separated evaluations of subjective from evaluations of objective responses to literature,[3] the other preserved the earlier division into 'levels' of response. With both dimensions, the working assumption was that the process involved first a response (objective or subjective, and at a given level of complexity), which was then given an evaluative marking. This approach, involving the redefinition of categories and then scoring and tabulating them for each sample, produced very striking results.

Undifferentiated Evaluative Responses

The first stage of evaluation is characterized by an undifferentiated evaluative response which the child is unable to explain. The subjective and objective responses seem thoroughly linked at this point, not because the child has begun to explore the relationship between them, but because he has not begun to separate one from the other. When asked to explain why he likes a story, the child will say "It's nice" or "It's good," and pushed about why it is nice, will respond, "Because I like it," or sometimes he will just shrug. When he does choose to elaborate, the rationale which is offered is syncretistic: the evaluation is linked to one or another striking aspect of the story rather than to a conceptualization of it as a whole. Thus:

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[3] Note that this is not a concern with objective and subjective forms of evaluation, but with whether what is being evaluated is a subjective or objective phenomenon. Whether the evaluation itself is subjective or objective is a separate problem, related to the distinction between 'liking' and 'judging', and will be discussed later.

> You said you liked the story 'Hansel and Gretel'. Why did you like it?--They got all the money and the gold.--You said you did not like the story 'Little Red Riding Hood'. Why didn't you like it?--He eats the grandma.
>
> --Jon M., 6;2

> You said you liked the story 'Cinderella'. Why?--It's nice.--Why do you think it is a nice story?--She went to the ball.--You said you do not like the story about the three little pigs. Why not?--They get all eaten up.
>
> --Joe P., 5;10

> I like the Lion, the Witch, and the Wardrobe because when the children were playing Hide-in-seek one hid in the wardrobe and hid behind the clothes and found herself in a cold snowy land.
>
> --Helen A., 10;1

In table 27 (below), which summarizes the results from the questions on reasons for liking and not liking stories, responses which go no further than "It's good" are recorded as linked global responses; those which include the citation of some specific part of the story are recorded as a global evaluation of an objective response. Clearly both forms are very important among the six year olds, appearing in 50 and 36 percent of their answers, respectively. Both types of response then fall off sharply, disappearing completely in the thirteen year old samples.

Evaluation as a Class-Attribute

At the concrete operational stage, evaluation becomes systematic in a way that it earlier is not. The child becomes aware of both his subjective and his objective response to a work, and begins to classify both kinds into general categories marked by certain defining attributes. It is these categories which in turn seem to be evaluatively marked, rather than the specific details of the story itself. Looking first at the evaluation of subjective responses, we find that these seem to be attributed directly to the work. Thus as reasons for liking or not liking,

Table 27: Levels of Objective and Subjective Response in Reasons for Liking and Not Liking Stories and Poems

	Percent of Students Using Once[1]					
	Specific Story		Stories in General			
	Interviews		Comprehensive School[2]		Selective Schools	
Response Type	Age 6 (n=22)	Age 9 (n=22)	Age 9 (n=30)	Age 13 (n=30)	Age 13 (n=20)	Age 17 (n=20)
Subjective Response						
Any	40.9%	81.9%**	90.0%	86.7%	90.0%	85.0%
Global	4.5	0.0	0.0	10.0	10.0	10.0
Categoric	36.4	81.9**	90.0	76.7	75.0	45.0
Analytic	0.0	0.0	0.0	6.7	25.0	50.0
Generalizing	0.0	0.0	0.0	6.7	0.0	35.0**
Objective Response						
Any	40.9	68.2	46.7	90.0***	100.0	80.0
Global	36.4	18.2	13.3	0.0	0.0	0.0
Categoric	13.6	50.0*	36.7	26.7	35.0	15.0
Analytic	0.0	9.1	0.0	50.0***	95.0**	75.0
Generalizing	0.0	0.0	0.0	20.0**	20.0	45.0
Linked Response						
Any	50.0	22.7	10.0	43.3**	75.0	75.0
Global	50.0	13.6*	10.0	0.0	0.0	0.0
Categoric	0.0	9.1	0.0	16.7*	35.0	10.0
Analytic	0.0	0.0	0.0	30.0**	55.0	70.0
Generalizing	0.0	0.0	0.0	3.3	0.0	35.0**
All Responses						
Any global	68.2	27.3*	20.0	10.0	10.0	10.0
Any categoric	50.0	90.9**	90.0	90.0	90.0	60.0
Any analytic	0.0	9.1	0.0	63.3***	95.0*	95.0
Any generalizing	0.0	0.0	0.0	26.7**	20.0	80.0***

[1] Age changes are tested for each response-type, with results as indicated in the body of the table. On all 19 variables, taking oral and written responses separately, there is only 1 significant difference between the sexes: girls are more likely than boys to respond with analysis of subjective responses, chi-square = 4.54*, df=1.

[2] Note that the two sets of responses at age nine represent different tasks (specific versus stories in general), different modes of response (oral vs. written), and overlapping samples (21 children are in both groups). Within-subject tests of differences show no significant differences at age nine on any of the variables tabled here.

*$p < .05$, comparing each column with that to its immediate left.
**$p < .01$
***$p < .005$

the children cite:

> ...they are exsiting. (Mark B., 9;8)
>
> Because the book is interesting. (Harold H., 13;3)
>
> Just plain funny. (Barry P., 14;0)
>
> A story that is dull and not exciting. (Elaine G., 14;2)

The point is that although attributed to the work, such characteristics as 'interesting', 'exciting', 'dreary', 'happy', or 'sad' are in fact describing the way in which the work has affected the reader. They are formulations of subjective rather than of objective responses, and are in turn marked for evaluation. This last point is especially important; the subjective response is not identical with the evaluative response, but a stage which precedes it. The children do not find it repetitive to say, for example, "Sometimes stories are dull and I don't like them" (Laura B., 9;11). Though the evaluation of dull is quite consistently negative, it is still a separate stage in the response. This is especially evident with a subjective response like 'happy': this is positively marked for most children, but consistently negatively marked for a few others.

Formulations of objective responses to the work have a very wide range at this stage. They too are essentially categoric, based upon criterial attributes used to define classes. The selection of attributes sometimes seems 'analytic', focussing upon parts of a work such as its 'rhyme' or 'rhythm', but at this stage these are used to define a class (of 'works that have rhyme' or 'works that have rhythm') rather than as a means of exploring the structure of a particular work. Other attributes which the children select at this stage tend to be situational; content is treated 'concretely' rather than as embodying a point or message of a wider generality. Stories are about 'cowboys' or 'families' or 'trains', rather than about 'how families work' or 'problems of good and evil'. The following are typical reasons at this level of response:

> I don't like Peter Pan because it is ice skating. (David H, 9;9--he has seen the ice capades version)
>
> [I don't like it] When it is a fairy story. (Everett H., 9;8)
>
> I like a story when it has animals. (Lisa G., 9;2)
>
> I hate train stories. (Elizabeth H., 9;9)
>
> In nearly every story the same things happen. (Thomas F., 9;9)

> [I don't like them] Because they are long. (Trevor K., 9;6)

Discussions at this level usually show little spontaneous attempt to relate the objective and subjective responses. Such linkage as there is tends to be situational, a matter of observed co-occurrence rather than of causality. Helen A.'s answer is typical:

> I do not like Heartsease because it is hard to understand and is also boring. (Helen A., 10;1)

Other children note in the same breath that they like adventure stories and they like exciting stories. In a few cases a clearer link between subjective and objective categories of response is evident, though again it may be the product of expectations built up through repeated co-occurrence rather than through analysis of the motivating relationship between the two sets of responses. Thus:

> Others I don't like because they are not esciting but are just about ordinary things we do every day. (Barry D., 13;2)

> A long book if not very interesting would not be liked because it would get boring. (Edward S., 13;4)

> It is about a type of situation you just don't dig. (Sam L., 14;1)

In table 27 above, a shift toward such evaluation of categories of subjective and objective response is clearly evident for both samples of nine year olds. Almost all, in both oral and written answers, cite categories of subjective response as reasons for liking and not liking stories, and slightly less than half cite categories more directly based upon the work itself. Interestingly, the linked categoric responses do not really emerge until thirteen (even then they are rare), suggesting that the conscious linking of the subjective and objective states represents a more advanced mode of thought. Some evidence of evaluation based on categorization is present in all of the age-groups sampled, but it clearly peaks for the nine year olds (where we would expect concrete operational thinking to be most prevalent).

Evaluation as a Product of Analysis

The next level of evaluation corresponds to the level of analysis in

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discussions of stories. Here the reader begins to study the structure of his responses to a work, and in turn to impose an evaluative marking upon one or another aspect of this analysed response. For the first time, he becomes concerned with the work as a structured whole, and with his response as being guided and shaped by that structure.

When the reader focusses upon the nature of his subjective response to a work, he becomes aware of it as having a pattern over time; he may note that the 'tension rises', for example, or that 'it lets you down in the end'. At the same time, he may become aware of his own empathy with one or another character, or with correspondences between his own situation and that in the work: this is usually expressed as 'identification' or as feeling 'like I was really there'. This reaction emerges only when the reader has moved beyond the concrete operational stage and begun to analyse the nature of his own response. It seems to result from a new ability to distinguish between subjective and objective responses to a work, with a corresponding recognition that the origin of the two sets is different. Where the younger child proclaims that 'The books are exciting', the older one recognizes that 'I was excited by the books', and in turn, that 'I was caught up in them'. Paradoxically, it is precisely when the reader begins to talk of his 'identification' or 'engagement', that the experience becomes further distanced psychologically: the response has become indirect, mediated through the recognition that it is only 'like I was there', whereas for the younger child it is directly and immediately 'exciting'. The following are typical of the subjective responses marked for evaluation at this stage:

I like to live in them. (Jill V., 13;8)

It makes you feel part of it. (Delilah M., 13;5)

Increasing tension. (Gail C., 13;7)

The author has put a lot of feeling into the words. (Sam L., 14;1)

A story must be able to hold the reader's attention by being either moving, exciting, or by being interesting. (Noam R., 13;7)

> I do not like to be depressed by the problem of the people in the story. (Barry P., 14;0)

When the reader's new powers of analysis are focussed instead upon his objective response, evaluation becomes concerned with aesthetic criteria: with the rhetoric and style of the work, as well as with its overall structure and development. These structural features are treated as defining its 'mechanism' rather than the category-membership of the work:

> It rhymes in the wrong places. (Lucy B., 13;5)
>
> Bad rhythm. (Vincent M., 13;8)
>
> The people in the book are described and characterised. (Beth L., 13;11)
>
> [I don't like it] When the story is too haphazard. (Sam L., 14;1)

The direct linking of subjective and objective response also becomes important at this stage, as the reader begins to analyse not only what his subjective and objective responses are, but also how they are related to one another:

> [I don't like it because it] Tries to explain people in a boring sort of way. (Lucy B., 13;5)
>
> [I like it] If the author has gotten into the story and makes it come alive. (Beth L., 13;11)
>
> Exciting rhythm. (Elaine G., 14;2)
>
> Satisfaction after reading, feeling of a complete piece of writing. (Jane E., 17;3)

Again returning to table 27, these analytic responses emerge as important in the thirteen year old samples. Analysis seems to concentrate on the objective response, which may in a sense be more analysable, but analysis of subjective responses (reflecting primarily claims of identification) begins to appear, as well as a considerable amount of spontaneous analysis of the relationships between the two sets. Evaluation of categoric responses, especially of subjective ones, continues to be important at thirteen, though less important than at nine.

Evaluation and Generalization

Finally in the last stage of evaluation the response which is marked involves a generalization about the meaning or theme of the work, rather than an analysis of its parts. Though both analysis and generalization, in the sense they are being used here, require the resources of formal operational thought, analysis begins to emerge sooner and more fully in these samples of evaluative responses (just as it does in the samples of descriptive responses discussed in the previous chapter). It may in fact have a facilitating role, helping to heighten the reader's sense of the work as consciously structured, and leading toward a consideration of why that particular structure was chosen. In any event, we find that analysis occurs alone, but generalization rarely does, usually resting upon and elaborating an accompanying analytic base.[4]

When the reader generalizes from his subjective response to a work, he concentrates upon how the work has interacted with his view-of-the-world: does he understand the world better, has he agreed or disagreed with the author's point of view, or, occasionally, has the work served some specific purpose for him (e.g., escape or entertainment)? Typical generalized subjective responses which are marked for evaluation include:

> I learned from it. (Keith M., 17;7)
>
> Relaxing and restful. (Nigel L., 17;10)
>
> You feel the same way as the author or poet. (Florence G., 13;1)

Generalizing from the objective response focusses on theme as a matter of the argument expressed in the work, rather than in terms of the reader's reaction to it. The work's depth, uniqueness, meaningfulness, and relationship to the author or to the world in general all become important. Whereas at the concrete operational stage responses focussed on describing and characterizing content as 'types' and 'situations', here the concern is with understanding and explaining them:

---

[4] Analysis and generalization occur together in 23, analysis alone in 36, and generalization alone in only 4 of the 144 discussions of reasons for liking and not liking stories. Chi-square = 24.03, df=1, $p<.001$.

That analysis can proceed without generalization does not mean that it must proceed without it in the earlier stages of development; the separation of the two may be a learned preference, reflecting the preferences of teachers. On the other hand, it may be that generalization from a work becomes effective, and fully satisfying, only after formal operational structures have become fully established--a benchmark which Piaget places at about fifteen.

> Some are silly because they have no meaning to them. (Stephen B., 13;6)
>
> Original theme. (Lydia M., 18;0)
>
> Pointless. (Charles G., 18;2)
>
> The depth of the book. (Ida S., 18;1)

At this stage, too, students often perceive links between their objective and subjective responses:

> Depth of meaning, therefore makes me think. (Winifred S., 17;5)
>
> Interesting ideas and philosophy behind the story. (Lydia M., 18;0)
>
> I dislike the book where some one brings their own polatics into a story because I find that I nearly always disagree with what they're trying to say. (Diane L., 13;6)

In table 27, these generalized responses are not in the majority at any age, but they are more prevalent for each type (objective, subjective, and linked) by seventeen than at any earlier age.

Developmental Trends

Older students list more reasons for liking or not liking stories than do the younger students in these samples; because of this, the proportion of students giving at least one objective, one subjective, or one linked response also rises with age (table 27). Within this general pattern, the proporti[illegible]giving objective and subjective responses remains in roughly even balance, though the situation is somewhat less clear for the younger age groups. At six, the response given by the largest proportion of the children is an undifferentiated one (e.g., "It's good"); this falls sharply in the nine year old sample and disappears entirely by thirteen. There is some logic in considering these undifferentiated responses to be subjective; at the least they are totally different than the explicit linking of objective and subjective responses by the majority of the thirteen and seventeen year olds.

If we consider the proportion of students who make use of each of the various levels of response at any point in their answer, the global level of evaluation occurs most frequently in the youngest groups; these responses drop sharply from six to nine and become even less important thereafter. The categoric response, in which the subjective or objective response to a work is taken as an instance of a class of similar responses, is used by all but 9 percent of the children at nine and remains in roughly the same proportion of the responses of the thirteen year olds. These older children, however, add to this categoric response some analysis and finally, at seventeen, a considerable proportion of generalization.

The co-occurrence of the different levels of response is itself an interesting phenomenon. At six and nine, all of the responses of the majority (63.6 percent) of the children are confined to one level (global, categoric, analytic, or generalizing); at thirteen, 84 percent respond at at least two different levels (usually, categoric and analytic). By seventeen, the responses of 50 percent reflect three different levels (usually categoric, analytic, and generalizing). This suggests that the modes of thought of the earlier stages are not simply replaced with the new resources of formal operations: the child continues to make use of his earlier ability to order and classify, even as he begins to analyse and generalize as well. None of the children at any age use all four levels of response in their answers, reflecting the disappearance of the syncretistic response and of the global "It's good" or "It's nice" as a sufficient answer. This does not mean, however, that the child no longer has a global response; in one sense, it is the global response of 'liking' which is being more fully explored in answering this question at all. What disappears is the circularity of "I like it because I like it."

Liking Versus Disliking

So far the reasons for liking and disliking have been pooled in considering the levels of response from each subject. There are, however, some differences in the sort of response which each question provokes. These are summarized in table 28. The figures reported there suggest that asking for reasons for liking rather than disliking increases the number of responses, but that this effect is selective rather than uniform. In particular, subjective and linked responses are significantly fewer in response to questions about disliking, while objective responses continue at the same high level as for liking. There is also some tendency for questions about disliking to depress the number of global responses. Two general effects seem to underlie these contrasts. On the

Table 28: Contrasts Between Reasons for Liking and for Not Liking Stories and Poems

	Percent of Students Using Each Response Type						
Response:	Subj.	Objec.	Link.	Global	Categ.	Anal.	Gen.
Interviews (n=44)[1]							
Liking only	25.0%	15.9%	34.1%	34.1%	13.6%	0.0%	0.0%
Disliking only	6.8	18.2	0.0	2.3	15.9	4.5	0.0
Both	29.5	20.5	2.3	11.4	40.0	0.0	0.0
Neither	38.6	45.5	63.6	52.3	29.5	95.5	100.0
Questionnaires (n=100)							
Liking only	28.0	20.0	12.0	5.0	16.0	3.0	11.0
Disliking only	8.0	20.0	15.0	4.0	9.0	7.0	5.0
Both	52.0	37.0	19.0	4.0	59.0	42.0	12.0
Neither	12.0	23.0	64.0	87.0	16.0	48.0	73.0
McNemar's Test,[2] Liking vs. Disliking							
Interviews	3.50	0.00	13.07***	10.56***	0.00	nsd[3]	nsd
Questionnaires	10.03***	0.00	0.07	0.00	1.44	0.90	1.56

---

[1] During interviews with six and nine year olds, children were asked for reasons for liking and not liking specific stories; the questionnaires used with nine, thirteen, and seventeen year olds asked for reasons for liking and not liking stories and poems in general.

[2] These are distributed as chi-square, with df=1. Cf. Siegel (1956).

[3] Binomial Test, following Siegel (1956) for small expected frequencies.

*p < .05, two-tailed
**p < .01
***p < .005

one hand, there is a general increase in the number of responses for liking probably due to what Kelly (1955) has noted is a tendency for the emergent or positive pole of a construct to be more fully elaborated than the negative, submerged pole. On the other hand, the need to find reasons for disliking a book seems to lead to a focus on the work itself, resulting in a higher proportion of analytic, objective responses than is otherwise the case.

3. Spontaneous Evaluation in Unstructured Discussions of Stories

With this background, we can return briefly to the levels of evaluation in the discussions of favourite stories and stories known well. During the first analysis, the various forms of evaluation were coded into the relevant Purves-Rippere (1968) categories; these have been discussed in the previous chapter. Very little evaluation emerges spontaneously from the six year olds discussing their favourite stories; their typical mode of response--retelling--is concerned primarily with presentation and is not a context particularly conducive to expressing evaluative reactions. By nine, evaluation appears in 30 to 40 percent of the discussions, depending upon the particular context. It is relatively evenly split between general assertions that "It's good" or "I like it" ('evaluation general' in the Purves-Rippere system), and more particular declarations that it is good because it is 'funny' or 'sad' or 'exciting' ('affective evaluation'). The responses of the thirteen year olds from the comprehensive school are very similar, but their selective school peers begin for the first time to give substantial attention to evaluation of the author's 'vision' or 'method'--essentially, the importance and handling of the subject or 'theme'. By seventeen, these latter categories have become dominant, each being used in 35 percent of the essays.

Engagement

One other development related to evaluation should be noted from the analysis by Purves-Rippere categories; this is a rise in the general category 'engagement', and in particular its subcategory 'reaction to content'. This does not appear at all at six, but is present in 30 percent of the answers by seventeen. Purves and Rippere (1968) quote "I really enjoyed the battle scenes" as one example of reaction to content, and "It seemed like I was right there next to Fabrice on the battlefield" as another. Expressions of this form represent the analysis of subjective response that emerged in considering evaluation separately, and are somewhat misleadingly separated out in this way; earlier forms of subjective reaction are absorbed into other categories, as aspects of tone and mood, or of evaluation. Linguistically, these expressions of subjective reaction often carry with them an unmarked but implicit evaluation. In both of Purves and Rippere's illustrations, as well as in Tricia's essay below, we would assume the student was expressing his approval of, as well as his subjective response to, at least a part of the book:

> For Whom the Bell Tolls. Ernest Hemingway.
> The action of this book takes place over only four days, and the reader is led through every moment, enthralled by the fate of the characters. Hemingway describes the scene so realistically that the reader becomes intimately involved with the small band of resistors to the Spanish regieme. For a brief moment, the reader can understand the behavior of all the characters during the four days, as a result of their backgrounds and previous experiences which Hemingway describes. The reader can feel compassion for Maria, who was so brutally treated by the soldier, for Robert, whose family background forced him to fight for a foreign cause, in which he lost his life, for the old woman who had to conquer her illusions and spur the ragged force of aging Catalans on to fight, for (Pablo?) the ex-bullfighter, whose strength and courage is decaying rapidly. (Tricia K., 17;5)

This is an analysis of her subjective response, but it is also a highly positive evaluation: no one would hesitate to conclude that she liked the book. It may be that most formulations of response carry specific evaluations with them as the conventionally unmarked case, and are explicitly marked only when the evaluation runs contrary to expectations or when the context demands that it be made more explicit (as in the request for 'reasons for liking').

Age Changes in Levels of Evaluation

To further explore the development of evaluative responses, each essay was also scored for the highest level of objective or subjective response marked for evaluation at any point in the essay. The definitions of the levels and of their characteristic forms of evaluative marking were those developed in the course of analysing reasons for liking and not liking stories. (Only those responses which were explicitly marked are considered here.) Table 29 (below) summarizes the results, first by age and then by the level represented by the remaining, evaluatively unmarked responses in the discussion. At the younger ages, a relatively small proportion of the essays are marked for evaluation at all. Even so, there is an overall trend with age toward marking higher stages of response; categoric and global evaluations dominate at nine, but by seventeen they have been replaced by evaluation of analytic and, in a few cases, of generalizing responses. This table shows a sharp discontinuity between the responses of the thirteen year olds in the two school settings, comparable to that found earlier in the general level of their discussions. The selective school children are more likely than their comprehensive school peers to mark their responses for evaluation, and among the marked responses, more likely to mark an analytic one.

Evaluation and Non-Evaluative Responses

The second part of table 29 suggests that there is a strong relationship between the level of the responses which are marked for evaluation and those which are not. If the reader discusses a story through summarizing what happens in it, he is also likely to evaluate it by marking some sort of summary category--that it is 'interesting', or 'good because it's an adventure'. If he analyses the story, he is likely to evaluate some part of the story as it is perceived in the process of analysis: the style will be noted as 'good', or he will like it because he has found himself 'involved' in it. There are too few discussions

Table 29: Highest Level of Subjective or Objective Response Marked for Evaluation During Unstructured Discussions of Stories

	Number of Discussions					
Level:	a.None	b.Glob.	c.Cat.	d.Anal.	e.Gen.	Chi-square[1]
Interviews						
Age 6 (n=22)	21	1	0	0	0	3.82 (df=1)
Age 9 (n=22)	15	2	5	0	0	(a,b+c+d+e)
Comprehensive School						
Age 9 (n=30)[2]	20	6	4	0	0	4.38 (df=2)
Age 13(n=30)	15	4	8	1	2	(a,b,c+d+e)
Selective School						
Age 13 (n=20)	4	3	4	9	0	0.91 (df=1)
Age 17 (n=20)	4	1	2	10	3	(a+b+c,d+e)
Level of Discussion[3] (n=100)						
Evaluation only	0	3	4	0	1	
Retelling	17	0	0	0	0	
Any synopsis	12	2	1	1	0	
Any summary	9	6	11	2	0	
Any analysis	4	0	1	15	4	
Any generalization	1	1	1	2	2	

Chi-square = 57.41***
(df=4)[4]

---

[1] Test of age differences, with levels of discussion pooled as indicated. The two schools differ significantly at age 13, chi-square = 8.20*, df=2, comparing categories a+b,c,d+e.

[2] There are no significant differences in the oral and written responses for the 21 subjects at age nine who completed both tasks, using McNemar's test.

[3] For the written measures only. The interview samples are not included here because of the 21-subject overlap.

[4] Comparing categories a+b,c,d+e, and retelling, synopsis+summary, analysis+generalization. The contingency coefficient for this table = .620, reflecting the high degree of association between the levels of responses which are marked and those which are not marked for evaluation.

*p .05
**p .01
***p .005

which are primarily concerned with generalizing about the work or the reader's response to it to draw valid conclusions, but even here a higher proportion have some form of generalizing response marked for evaluation than at any of the other levels of discussion. The table also suggests that the developmental course of evaluation is cumulative. Even though the essays were categorized only in the 'highest' level for this table, there is a clear imbalance in the distribution of responses: analysis and generalization, for example, do not preclude global and categoric evaluation in the way that not rising above summary description seems to preclude analytic and generalizing forms of evaluation.

4. Liking and Judging: A Prelude

Before leaving for a moment the question of evaluation, it is important to note that this chapter has collapsed two different types of evaluation that are perhaps best summarized as 'liking' and 'judging'. This is a distinction easily handled within the framework that has been adopted for analysing response, but also a distinction which the responses gathered in the course of this part of the investigation were not designed to shed much light on. (Students were asked only about their liking of stories, not to judge them, and few 'judgmental' responses resulted.) Chapter X will investigate differences in these two modes of evaluation more thoroughly, but for the moment we can note that judging is an objective evaluation of a subjective or objective response, while liking is a subjective evaluation of the same response. There can be consensus in response in both liking and judging, but consensus in liking is a consensus about the nature of individual experience, while consensus in judging is one about conformity to systems of constitutive rules (conventions of literary form, say) which are more or less publicly acknowledged. In literature, of course, there have been many different sets of constitutive rules structuring the judgment of a work, rules proposed by different schools of criticism and philosophy. Each of these differing and sometimes conflicting judgments, however, is objective in that it appeals to some set of shared and formulable standards and expectations.

Systems of rules for judging works seem to have their origin in attempts to explain why some works are liked. A child of nine or ten, say, may claim that a book is good because it is an adventure story. 'Adventure story' is a categorization that is to some extent objective, even if not precisely formulated; it is possible to argue about whether a given story is or is not an adventure story, and even about whether or not an adventure story should by definition be constituted as a 'good' story, in a way that we cannot argue about whether we have 'liked' a given story or found it 'exciting'. "Adventure stories are good stories" offers, in this context, a publicly definable, objective categorization which will explain, and to some extent make discussable, the central but private response of liking. Though much will intervene, the links are quite direct from this initial attempt to objectively define categories of 'good books' to the highly sophisticated theories of literature which attempt to formulate rules for judging--theories ranging from Aristotle's Unities to the criteria of form and consistency of the New Critics. Such systems for judging can become totally separated from the primary response of liking which they seem designed to explain; there is 'good literature' which few people enjoy, and much that is read avidly with the shamefaced acknowledgement that it "is not very good, really." (Thus George W., 16;8, began his essay with "This book is science fiction and hence, is not a very good piece of literature. However, the concepts were 'ego-splitting' and made one think about the possible purpose of man's existence....") The emergence of such a separation between the objective systems of judging and the subjective systems of liking is an ancient one and presumably has its own cultural functions. The point for the moment, however, is that liking and judging seem to be separable, and each to be an interesting subject for study in its own right.

5. A Model of Developmental Change in Response to Literature

Where does all of this leave us? For the first time, we can propose a systematic description of developmental changes in the formulation of literary response, a description integrated on the one hand with developmental changes in modes of thinking and on the other hand with Langer's distinction between objective and subjective modes of feeling. Table 30 provides a schematic representation of this model. At the preoperational stage of intelligence, the characteristic formulation of response is to retell the story or selected incidents from it. There is little sense of the overall structure of the plot, which is treated instead as separate incidents which the child may or may not be able to enactively chain one to another. At this stage, the subjective response is usually not separately formulated, appearing only when marked for evaluation as 'very good' or 'one I like'. The acquisition of concrete operational schemata, which Piaget places roughly at seven years, brings with it a new ability to summarize and categorize responses, to treat them as representatives of classes. Here both objective and subjective modes of response become important, though the distinction between them is still apparently not recognized by the child. His subjective awareness that the work is 'funny' or 'exciting' or 'sad' is still attributed directly to the work, in the

Table 30: A Model of Levels in the Formulation of Response to Literature

Mode of Thinking	Characteristic Response	
	Objective	Subjective
Preoperational (ages 2 to 6)	Retelling, in whole or in part	Unformulated, or global
Concrete operational (ages 7 to 11)	Summarization and categorization	Categorization, attributed to the work
Formal Operational Stage I (12-15)	Analysis of the structure of the work or the motives of the characters; understanding through analogy	Identification or perception of involvement in the work
Formal Operational Stage II (16-adult)	Generalization about the work; consideration of its theme and point of view	Understanding gained or not gained through the work; its effect on the reader's own view of the world

same way that such characteristics as 'long', 'rhyme', and 'love story' may be.

The acquisition of formal operational thought appears to have its influence in two stages. During the earliest of these, probably corresponding to the twelve to fifteen year old age-span during which Piaget asserts that these mechanisms are in the process of being acquired, response is formulated as analysis. Though it does not appear in the essays, other evidence collected suggests that there is also a corresponding tendency toward understanding through analogy or 'exemplification': the work is treated as illustrating one example of a much wider class of similar life-experiences. At the same level, as a result of the analysis of his subjective response, the reader begins to be conscious of a distinction between his objective and subjective reaction, tending to formulate the latter as 'identification' or 'involvement' in the work.

The second stage of formal operational thought represents the most mature modes of response studied in the course of the present investigation. Here, the reader begins to generalize about the meaning of the work, to formulate abstract statements about its theme or message; he seems for the first time to accept it as Harding's (1962) "accepted technique for discussing the chances of life." As such, it has taken on a very new role: it is one of many statements of how life might be understood, rather than simply a presentation of life as it is. As part of this awareness, the reader's subjective reactions begin to focus on how he, as an individual, has reacted to the work as a discussion of the ways of the world: has he learned from it? disagreed with it? found it clear and satisfying?

Evaluation has no separate place in the outline of response which table 30 provides. This is because evaluation is seen to be an integral part of all of the other response-modes. Certain contexts of use will require that the evaluation (positive, negative, or neutral) be explicitly indicated, but in all contexts it is implicitly present.

Finally, we should note that the stages in the model build upon one another. As the child matures, he does not pass out of one mode of responding into another, but integrates his older structures of response into a newer and more systematic set of constitutive rules. Thus the six year old has available only the resources of a syncretistic, largely undifferentiated response. He can retell stories or incidents, but he has yet to develop a stable system of categorizing them, and he has no way at all to formulate abstract statements about their meaning or purpose. The seventeen year old, on the other hand, not only can generalize, but is also able to muster the resources of all of the earlier stages. He can analyse in support of his generalizations; he can categorize and summarize; and he can retell in whole or in part, depending upon his purpose.

CHAPTER IX

THE DEVELOPMENT OF CONSTRUCT SYSTEMS

1. Introduction

Repertory Grid Technique

Kelly's (1955) repertory grid is a technique for the study of construing within a specified psychological domain. There are many methodological variations, but each attempts to provide a matrix of scores relating a set of 'elements' (events, people, ideas, stories) from the world at large with a set of 'constructs' which are used to order and make sense of that world. Conventionally, the grid is structured with the elements across the top (defining the columns) and the constructs down the side (defining the rows). Scores specify the relationships between elements and constructs and, with some further manipulations, can ~~also~~ be used to study relationships among the constructs or elements themselves. One of the advantages of grids is that with them such relationships can be studied in individual subjects as well as in groups.

Grids for the Study of Spectator-Role Construing

Two grids were constructed to study how children construe stories, one to be administered orally to younger children and the other to be administered as a questionnaire to older ones. Grid technique allows considerable latitude in the degree to which the constructs and elements in the grid are specified ~~in~~ advance by the investigator, or are instead elicited from each individual studied. In this investigation, the specific constructs of interest were supplied to the subjects, but the elements (in this case, stories) ~~were~~ allowed to vary. This is a format which has been used successfully by Carver (1967) in the study of construing of films by older students and adults; it is readily adaptable to questionnaire format; and it provides sufficient between-subject task-consistency to allow the study of group responses. There is, however, a corresponding decrease in the ability of the technique to reveal uniquely personal systems of construing; it allows us to see how each individual makes sense of the provided constructs, turning them to his own use, but it does not reveal which constructs would have been used spontaneously.

The set of 20 constructs used by Carver (1967) in her study of responses to films was taken as a starting point. This was modified to include constructs of particular interest to the present investigation and tested during the preliminary study; it was then modified again to eliminate ambiguities that emerged and to include certain constructs which students had frequently added when asked for 'one additional'. On the written grids, one pole of each construct was specified, with students asked to indicate what they considered the opposite pole to be. These opposites provide data which can be used in analysing the changing meanings--and meaningfulness--of the constructs; they also introduce some latitude for individual variation. (E.g., 'simple' could be taken as the pole of 'hard' by some students, and of 'complex' by others; this will be discussed below.) In the final form of the grid, 19 constructs were supplied, with a twentieth which students were asked to supply for themselves. Table 31 (below) lists these and indicates 10 which overlap directly with Carver's (1967) grid and 4 others which are similar though not identical to hers. (A copy of each of the grids used in the present study is included in appendix IV.) In table 31, the constructs are organized according to the more general category or type of response which each was chosen to reflect. Using the Purves-Rippere (1968) system of categorization, the grids are biased toward evaluation and perception subcategories, though as the previous chapters have suggested there is good reason to question the usefulness of this classification. The set is designed to allow the investigation of a number of questions, some of which are new and some of which parallel questions approached from other perspectives in earlier chapters; these will be taken up in introducing the results of the relevant analyses.

The procedure for eliciting the elements to define the columns of

Table 31: Constructs Used on Repertory Grids

Construct Category	Written Grids	Oral Grids[1] (with pole)	Used by Carver (1967)	Purves-Rippere Category[2]
Evaluation-General				
1. Very good	x	(not)	x	400
Evaluation-Personal				
2. One I like	x	(don't)		400
3. Interesting subject	x	(boring)		400
4. Dull	x			400
Evaluation-Formal				
5. Well-written	x			422
6. Original	x		x	400
Engagement				
7. Completely absorbing	x		x	100/400
8. Disturbing	x		x	100/200
Description				
9. Easy to understand	x	(hard)	(easy to follow)	200
10. Simple	x		x	200
11. Long		(short)		200
12. Slow-moving	x		x	200/400
13. Serious	x	(funny)	x	200
14. Full of violence	x		(violent)	200
15. Ends happily	x	(sadly)		200
16. Works out as you would expect in the end	x		x	200
Evidence of Generalizing				
17. Makes me think	x		(forces you to think)	100/400
18. Teaches a lesson	x	(doesn't)	(points a good moral)	300
Concern for Realism				
19. Really happened		(made up)		200/400
20. Like real life	x		x	400
21. Could happen to me or my friends	x			100/400
Concern for Audience				
22. For people older than you		(for younger)		200
Elicited Construct				
23. Another description that seems important to add	x		x	

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[1] Copies of the grids are included in appendix IV. Both poles of each construct were presented in the orally administered grids.

[2] Categorizations based on brief phrases such as these are somewhat tenuous. Those given here reflect the most frequently suggested opposites to each construct as well as the pole provided. Categories are explained in detail in Purves and Rippere (1968). The 100-level categories are 'engagement-involvement'; the 200-level ones are 'perception'; the 300-level, 'interpretation'; and the 400-level, 'evaluation'.

each grid parallels that used by Kelly (1955): subjects are provided with a list of general categories in the domain of interest and asked to illustrate each category from their own experience. The categories attempt to provide a representative (though clearly not a random) cross-section of elements from the domain. Kelly used categories such as mother, father, best friend, wife and favourite teacher in his grids; for the present study each student was asked to nominate his favourite story, a story he did not like, a 'deep' story, an easy story, another story he liked, a hard story, a moving or gripping story, and a story which he had recently heard. As with the constructs, this list began with an adaptation from a similar list in Carver's (1967) investigation, with further changes based on preliminary study results. Throughout, as in all other phases of the investigation, it was stressed that 'stories' referred to narrative material of any length, with novels or short stories being equally valid responses.

The use of such a list of story-types has a number of advantages for a developmental study of response. Most importantly, it insures that students at different ages and in different schools are responding to stories which are representative of their own repertoire: each is able to discuss a story which is his favourite, one he thinks is difficult, and so on--not one that the investigator or some outside panel has rated as likely to be 'good' or 'hard' for a given population of students. The use of these categories also makes it possible to examine the relationships among the categories: what are the differences between favourite stories and others that are simply liked, for example? Finally, this procedure allows us to look directly at the way in which stories are construed and the patterns of meaning which they are given, bypassing the equally interesting yet different problem of the process involved in giving them that meaning.

One further story, Cinderella, was supplied as the first element in each grid. This was selected after the preliminary study as a story known by children and adults alike, in order to provide one look at how construal of a specific story changes with age.

The orally administered grids were set up to parallel the written measures, but with modifications to make them workable with younger subjects. One obvious simplification was to make them shorter--each grid is only half as long as the written questionnaire. The preliminary study indicated that a better distribution of responses--and fewer misunderstandings--resulted when the younger children were given the choice between two poles of a construct, so on this grid both poles are fully specified (e.g., "Is the story Cinderella a long story, or a short story?"). The element-elicitation procedure used on the questionnaire was also abandoned after it proved very difficult for the youngest children. Instead, story-titles were elicited separately from each classroom teacher, again with an attempt to provide a representative cross-section of the common repertoire. This of course reduces the degree of alignment between elements: a story chosen by the teacher as 'one the class likes' will be liked by some of the children in the sample, and disliked by others. Eight stories and 10 constructs were used in these grids, with the stories including Cinderella and the reading scheme in use in the participating classrooms.

Samples

Six and nine year olds assigned to the first of the two interview schedules received the oral grid as part of the interview. The written grid was distributed to half of the students in each class receiving the open-ended questionnaire. Thus 22 children completed the oral grid at six and at nine; 30 completed the written grid at nine and at thirteen at the comprehensive school; and 20 completed the written grid at thirteen and at seventeen at the selective schools. A further, highly self-selected sample of 7 seventeen year olds (5 boys, 2 girls) completed the written grid at the comprehensive school; their results will be cited occasionally but are not included in the statistical analyses. Again, these samples are described more fully in chapter III, and are summarized briefly in supplementary table 38.

Analysis of Data

A repertory grid generates a massive quantity of data: for the written grids in this study, for example, each subject was asked to rate 9 stories on 20 constructs--180 ratings in all. From this matrix, 190 further scores representing the relationships among the 20 constructs, and 36 representing the relationships among the 9 elements, can also be calculated; and these matrices can in turn be analysed in terms of the degree and nature of the structuring they reflect. All of these measures can be repeated on or averaged over the age and sex groups sampled in the course of the survey. The overriding need in presenting the data is to cut through this abundance to the measures of most interest; to help keep it all in perspective, many of the technical details of the analysis have been relegated to footnotes and appendices.

In discussing the data, we will ask first whether the grids provide an adequate framework for the expression of individual patterns of construing. The discussion will then move on to the problem of meaningfulness and degrees of freedom, or complexity, in the construct systems at different ages, and from there to the extent to which that complexity is organized. Finally, the particular dimensions along which the construct systems are structured will be explored. Discussions of systematic differences in the way various story-types are construed will be deferred to the next chapter.

2. Standard Grids and Individual Construing

The Constructs.

It is a central tenet of personal construct theory that construing is an individual process, but the grids in the present study are relatively structured. The first question must be whether or not the standard format provides an adequate albeit somewhat generalized framework for the expression of individual processes of construing. The available evidence will suggest that in this case it does.

As a direct test of the extent to which the supplied constructs were adequately representative, students completing the written grids were asked, "What description have we overlooked that seems to you important to add?" (This was then used as the twentieth construct in each grid.) This list of constructs-added is characterized by extreme individual variation: in the 100 grids, the 2 most frequently added constructs are ones that were used in the instructions as somewhat irrelevant examples, and which the nine year olds especially repeat back when they cannot think of anything else. Five others are repeated 3 or more times, but none is used by more than 6 out of the 100 subjects.[1] This contrasts favourably with the preliminary study, in which 2 constructs accounted for over half of the suggested additions to the grid in its early form. The distribution of constructs-added when classified into the Purves-Rippere (1968) response categories is also very close to the distribution of the 19 supplied constructs: 51 percent of the constructs-added represent 'evaluation', 37 percent 'perception', 5 percent 'interpretation', 2 percent 'engagement', and 3 percent 'miscellaneous'. (In the original list of 19, 10 were classified or cross-classified as perception, 9 as evaluation, 2 as engagement, and only 1 as interpretation.) The lack of any consensus about constructs to add suggests that the list of 19 supplied constructs overlaps quite fully the range that would have been consistently elicited using this set of story-types, if an elicitation procedure had been used.

Another check on the adequacy of the list of constructs was made by including several construct-eliciting situations in the interviews and open-ended questionnaire. The question which asked about reasons for liking or not liking stories and poems (discussed from another perspective in chapter VIII) produced the longest list of different constructs. Tables 32 and 33 summarize these elicited constructs, and compare them with those used on the grids. For the younger children, the only major gap centers on the use of specific details from a story (e.g., "Peter Pan is a good story because he flies out the window"). These are highly individual, idiosyncratic responses, and may be thought of as a reiteration of part of the story to be construed (as 'liked' or 'not liked'), rather than as unrepresented constructs. "Nice" is also used by 6 of the 44 children, but this seems to be adequately covered by the related constructs, 'very good-not' and 'one you like-don't'. The older students provide a much richer set of elicited constructs, but again those on the grid seem to provide adequate coverage. One exception would be constructs for 'rhymes' and 'has rhythm', but these emerged on

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[1] 'Very old' (cited by 11) and 'has enough pictures' (by 9) were the most frequent additions, and were also used as part of the instructions. Other constructs appearing 3 or more times included: 'exciting' (6), 'humorous' (6), 'would read it again' (5), 'modern-historical' (4), and 'children's book' (3).

Table 32: Constructs Elicited During Discussions of Specific Stories Liked and Disliked

	Number of Children			
Elicited Constructs	All (n=44)	Age 6 (n=22)	Age 9 (n=22)	Equivalent on Oral Grid
For Liking				
It's funny	15	4	11	serious-funny
Specific incident	13	7	6	-
It's interesting	10	2	8	interesting-boring
It's good	7	5	2	very good-not
It's nice	6	5	1	-
Specific character	3	1	2	-
Other	6	2	4	
For Not Liking				
It's boring	8	0	8	interesting-boring
Specific incident	6	6	0	-
Too hard	4	1	3	easy to understand-hard
Too long	4	1	3	long-short
Not interesting	4	2	2	interesting-boring
Not for this age	2	0	2	For older-for younger
Other	6	2	4	

Table 33: Constructs Elicited in Written Discussions of Reasons for Liking and Not Liking Stories and Poems

		Number of Students				
		Comprehensive School		Selective Schools		
Elicited Constructs	All (n=100)	Age 9 (n=30)	Age 13 (n=30)	Age 13 (n=20)	Age 17 (n=20)	Equivalent on Grids
For Liking						
Exciting, moving	50	7	14	12	17	(not) dull
Interesting	33	6	14	6	7	interesting subject
Funny	24	13	8	2	1	(not) serious
Good, liked	17	3	5	1	8	very good, one I like
Rhymes, has rhythm	15	3	6	5	1	-
Lively	12	0	0	4	8	(not) slow-moving
Subject(e.g., trains)	11	1	4	5	1	interesting subject
Life-like	11	0	1	5	5	like real life
Has meaning, moral	10	0	1	1	8	teaches a lesson
Good style	10	0	0	6	4	well-written
Good plot	10	0	1	4	5	-
Fast-moving	10	1	3	5	1	(not) slow-moving
Other[1]	66	4	9	24	29	
For Not Liking						
Boring, dull	60	13	19	14	14	dull
Not interesting	16	2	5	5	4	(not) interesting
Bad style	16	0	1	9	6	(not) well-written
Hard	14	1	2	8	3	(not) easy
Haphazard plot	14	1	3	5	5	-
Too long	13	3	5	4	1	slow-moving
No meaning, moral	10	0	3	2	5	(doesn't) teach a lesson
Poor rhyme, rhythm	10	1	3	4	2	-
Slow	10	1	4	3	2	slow-moving
Other[1]	87	18	16	22	31	

[1] All constructs used by 10 percent or more of the students are separately listed.

the questionnaires in response to poems rather than stories and are at least generally covered by the construct 'well written'. The other and perhaps more serious omission is the construct 'good plot-haphazard plot', which appeared frequently among the reasons both for liking and for not liking stories. In the grids it is covered only indirectly through 'works out as you would expect in the end' and the various evaluative constructs; that this does not appear at all among the constructs added to the grids suggests that this coverage may be adequate even if indirect.

The Stories

Though students in the present study had little choice in the constructs which they were asked to use, there was more latitude in the choice of elements. By providing only a set of story-types, subjects were allowed to draw upon as large a pool of stories as they wished. If relatively few titles were selected for discussion by the group, it would suggest that stories are an area in which they have had very little exposure, and hence have a very small pool of illustrations to draw upon; if one or another story-type provoked a limited list, it would suggest that the category was tapping an isolated and perhaps atypical part of the domain. In fact, all of the age-groups sampled drew upon a large pool of stories in making their responses: the 30 comprehensive school children used 126 different titles at nine and 138 at thirteen, while the 20 selective school students used 136 at thirteen and 110 at seventeen. (Between-school figures are not comparable because of the differing sample sizes.) When the data are further broken down by story-type (table 34), there is no evidence to suggest that one or another category is tapping an unacceptably constricted domain. The most overlap occurs for 'easy'

Table 34: Number of Different Titles Selected As Representative of Various Story-Types at Each Age

	Number of Titles[1]			
	Comprehensive School		Selective Schools	
Story-Type	Age 9 (n=30)	Age 13 (n=30)	Age 13 (n=20)	Age 17 (n=20)
Favourite	26	27	19	18
Not liked	21	20	19	19
Deep	21	22	18	17
Easy	16	27	18	19
Another liked	26	24	19	17
Hard	26	19	20	17
Moving	21	26	17	18
Recent	22	23	20	18
All categories	126	138	136	110

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[1] The maximum number of different titles for each story-type is equal to the n at each age.

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stories among the nine year olds, who tend to list fairy tales for this item; the least overlap occurs for 'recent' stories among the thirteen year old selective school students, all of whom choose a different title. No single title had a large following among any of the groups, with the most frequently cited ones being texts that had recently been used for class reading; no title was mentioned by even one-third of the students at any age level, even though each student had to select 8 in all.[2] This variety is great enough to insure that comparisons between ratings on different elements in these grids will represent contrasts between the story-types rather than between specific titles.

On the oral grids, titles were selected by the class teachers and are necessarily more constricted. (The specific titles are listed in supplementary table 8.) As with the written grids, these selections sought to provide a representative cross-section of the stories with which the children were familiar. We can indirectly assess how much each story-type is seen as different from the average story, by looking at how much its ratings on each construct deviate from the average rating. A story which a child considers very unusual will produce a high within-grid variation, while a story which provokes only neutral reactions (and hence which tells us little about how he discriminates between stories) will generate very little variation. In both the written and oral grids, all of the story-types do contribute substantially to the total variation, with no single category or set of categories dominating at the expense of the others. On the oral grids, the proportion of variation accounted for by each type of story ranges from a high of 19.5 percent for the reading series used by the class at age six, to a low of 9.4 percent for 'a story the class likes to hear over again' at age nine. On the written grids, the range is from 7.6 percent for 'a story heard recently' among the age thirteen selective school students, to 20.7 percent for Cinderella among the seventeen year olds. Cinderella is the only element in the grids which shows a consistent change across the ages, beginning at 10.9 percent at age nine and then rising steadily. This suggests (not surprisingly) that Cinderella is less typical of the repertoire of the older children, with ratings that increasingly deviate from the general average. Its contribution to the total variation, however, remains low enough even in the oldest age group that it should not be seriously distorting the results. (Its contribution at seventeen, for example, is only 1.8 percentage points greater than that for 'a story not liked'. These data are presented in full in supplementary tables 9 and 10.)

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[2] The most popular titles from all measures are included in supplementary tables 36 and 37.

Taken together, these characteristics give some confidence that the standard grid format adequately represents the area of overlap between the construct systems of the individual students in these samples. This is not to argue that the supplied constructs are the same as those that would have been individually elicited; that would be highly surprising. Rather they subsume them thoroughly enough that changes in the relationships within this standard set should be directly related to changes within the individual construct systems.

3. Meaningfulness

Discrimination Among Elements

In studying the way a set of stories are construed, one of the first questions of interest is which--and how many--constructs are being meaningfully applied by the children in the various samples. "Meaningfulness" is itself a deceptively complex construct, however, confounding within it problems of consistency across time and between subjects, of the relative importance of constructs within the specified domain, and of the range and focus of convenience of the constructs being considered. To begin to untangle some of the various issues involved in meaningfulness, we will look first at a number of estimates of the extent to which the constructs in the grids discriminate among the various stories and story-types. This aspect of 'meaningfulness' is quite central to personal construct theory: if there is no discrimination, the construct is in a real sense 'meaningless' in its application, no matter how good a definition the children may be able to provide.

Subjects rated each story on a 5 point scale ranging from '1' if they 'agreed completely' that a construct applied directly to the story, to '5' if they 'disagreed completely' that it would be an appropriate description.[3] Though many other types of scale have been used in grids, this sort allows the subject a maximum latitude in his distribution of ratings: the amount of variance on each construct and for the grid as a whole can fluctuate, the elements can be biased toward one or another pole of a construct rather than balanced around the midpoint, and neutral or moderate ratings can be used or not as desired. Each of these characteristics has been interpreted as an aspect of meaningfulness by various investigators, and needs to be discussed here (cf. Bannister and Mair, 1968; Bonarius, 1965; Miron and Osgood, 1966).

Bias

Bias (or lop-sidedness) reflects the extent to which elements are evenly balanced between the poles of a construct, or alternatively tend to cluster so that one pole is virtually unused. For grids in this study, a measure of bias was calculated which is based on the discrepancy between the midpoint of the grading scale and the mean for the construct. This was accumulated across constructs and expressed as a coefficient varying from 0 (balanced distribution on all constructs) to 1 (all stories at one pole of each construct).[4]

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[3] A '3' was used for stories to which a construct did not apply, or to which both poles applied equally, with '2' and '4' as intermediate points.

[4] Bias was calculated for each grid by the MRC grid analysis service under the direction of Dr. Patrick Slater. The measure is summarized briefly in Slater (1972b), and is amplified in appendix III.

Results for bias are summarized in table 35. They show a gradual decrease in bias as age increases, as well as a sharp drop in bias between the oral and written forms of the grid. It is unclear whether this drop is because the teacher-selected titles are more homogeneous than the individually selected ones, because the constructs chosen for the oral grid are less discriminating than those in the written set, or because of some demand characteristic of the interview situation. The major age change occurs between nine and thirteen for both boys and girls; during this interval the constructs in the grid seem to become, as a set, more discriminating in that both poles are being regularly used to describe stories.

Table 35: Within-Grid Bias in Ratings of Stories

	Average					
	Oral Grids		Written Grids			
	Interviews		Comprehensive School		Selective Schools	
	Age 6 (n=22)	Age 9 (n=22)	Age 9 (n=30)	Age 13 (n=30)	Age 13 (n=20)	Age 17 (n=20)
Boys	.701	.693	.566	.420	.437	.415
Girls	.765	.704	.569	.445	.432	.472
Within cell standard dev.	.127		.099		.063	
	F-ratios					
Analyses of Variance	6 vs. 9		9 vs. 13	13 vs. 13		13 vs. 17
Age (or school)	0.82		27.97***	0.02		0.18
Sex	0.98		0.29	0.37		1.65
Interaction	0.48		0.18	0.48		2.38
(df for each effect)	(1;40)		(1;56)	(1;46)		(1;36)

*$p < .05$

**$p < .01$

***$p < .005$

Polarity

The 'polarity' or extremity of ratings has sometimes been used as an index of meaningfulness, with the argument that the more meaningful a construct is in the context in which it is being used, the more likely that extremes rather than moderate or neutral points on the scale will be used. Studies with adults have shown that scores tend to be more extreme

Table 36: Use of Moderate, Extreme, and Neutral Grades in Ratings of Stories

	Average Percent of Each Grid's Ratings					
	Oral Grids		Written Grids			
	Interviews		Comprehensive School		Selective Schools	
Ratings	Age 6 (n=22)	Age 9 (n=22)	Age 9 (n=30)	Age 13 (n=30)	Age 13 (n=20)	Age 17 (n=20)
1. Extreme (1 or 5)	93.9%	82.4%	87.5%	68.8%	58.2%	64.7%
2. Moderate (2 or 4)	1.1	8.8	3.4	19.3	31.1	26.8
3. Neutral (3)	4.9	8.8	9.0	11.8	10.9	8.5
Multivariate F-Statistics[1]	6 vs. 9		9 vs. 13	13 vs. 13		13 vs. 17
Age (or school)	9.55***		20.95***	6.22***		1.64
Sex	1.41		0.54	2.62		2.52
Interaction	0.53		2.34	0.66		0.71
(df for each effect)	(2;39)		(2;55)	(2;45)		(2;35)

[1] Since the scores have a linear dependency, only the first two were used in the multivariate analyses; results would be identical whichever of the three were omitted.

*p < .05
**p < .01
***p < .005

when constructs are elicited rather than supplied, or when subjects are allowed to choose which constructs on a set are most meaningful to them (Miron and Osgood, 1966). In the present study, however, with grids from students between the ages of six and seventeen, it is the older students who make significantly more use of moderate ratings. These data are summarized in table 36, where again the largest shift occurs between nine and thirteen. Overall, the proportion of extreme ratings (1 or 5 on the scale used) falls from 94 percent at six to 65 percent at seventeen. In view of the drop in bias between the oral and written forms of the grid, it is interesting to note their nearly identical polarity.

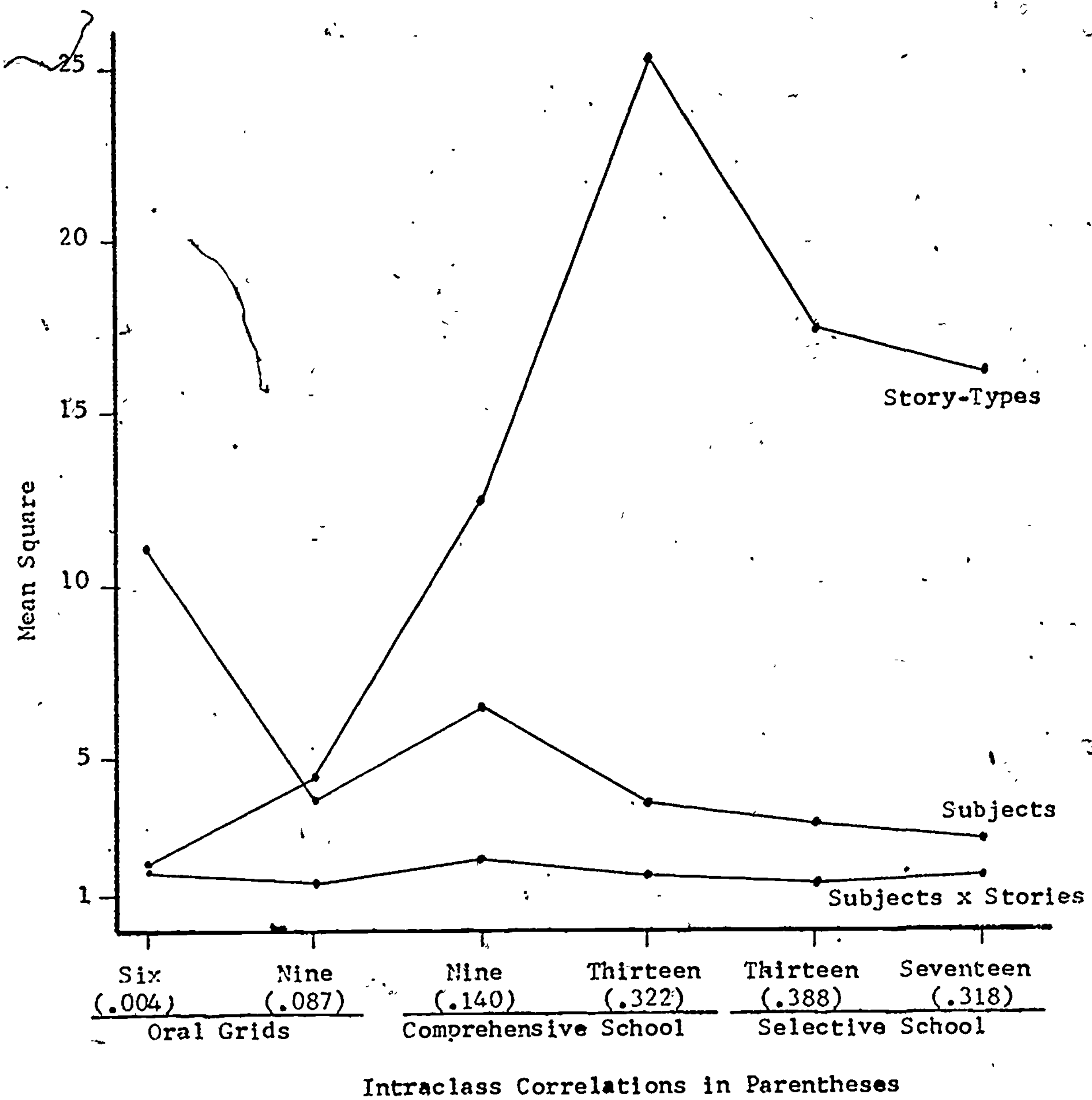
Variation

Bias and polarity are closely related to the amount of within-grid variation about construct means. Variation is in some ways the most direct measure of discrimination among the elements in a grid; the greater the within-grid total variation, the more separation there is among the stories. The changes already observed in bias and polarity, however, have conflicting effects. Young children tend to rate stories at the extremes of the rating scale (high polarity), and to cluster their ratings on each construct at one end of the scale (high bias). As they grow older they begin to use the intermediate points on the scale, which tends to decrease the total variation. At the same time, they also begin to distribute their ratings more evenly toward both poles of each construct, which increases the variation. Age-change in the resulting total, though sometimes statistically significant, reflects an interaction between these effects and is correspondingly erratic (supplementary table 11). Carver (1967) similarly found that the total within-grid variation did not discriminate among her samples of apprentices, pre-university students, and professional critics.

Consensus in Ratings

The variation in the grids can, however, be used to examine the related question of 'public' meaningfulness, or the extent of socially negotiated consensus about the meaning of the constructs and story-types. Figure 2 (below) breaks the total variation observed in each age group into its component parts. Subject variance represents differences between students in their attitude toward stories in general, as measured by the constructs supplied in the grids; story variance represents the amount of consensus about the way the various story-types differ from one another; and subject by story interaction represents the remaining variation in ratings introduced by differences in the specific titles and construct-meanings used, as well as by any errors that may have been made in the course of completing the grid. It is the variance due to story-types which represents the publicly agreed meanings, and this shows a clear rise from six to seventeen, increasing some six-fold across this age-span. This variation due to types of stories is considerably less for the oral than for the written grids, but this is readily

Figure 2: Age-Changes in Mean Square Variation



explicable as a result of the shift from teacher-supplied to subject-supplied titles: 'easy' stories nominated by the teacher, for example, are less likely to be construed as easy by all of the children than 'easy' stories they have chosen themselves. The variation due to story-types peaks for the thirteen year old comprehensive school sample, but the reason for this is unclear; it may be that these students have a more stereotyped approach to stories, with such types as 'good', 'bad', 'hard', and 'easy' more rigidly contrasted.

The differences in figure 2 can be summarized statistically with an intraclass correlation coefficient at each age; these range from 0 when there is no relationship among the various patterns of ratings in different grids, to 1 when the ratings in different grids are identical. These coefficients (included at the bottom of figure 2) show a rise from nearly 0.0 at six to about .32 at seventeen. This is at best very moderate, though not discouragingly so: each student is after all rating his own unique selections of titles. There is, moreover, substantial agreement on certain constructs: in the selective school samples they range as high as .680 for 'one I like' at seventeen and .749 for 'very good' at thirteen (cf. supplementary tables 15 and 16).

Labelling Construct Poles

The ability to label the opposite pole of a supplied construct indicates that the construct is to some extent familiar and meaningful, though the converse may not be the case: inability to specify an opposite may mean the construct is not used, or simply that it is not thoroughly verbalized. In the overall developmental pattern in labelling construct poles, responses move from no answer at all to a negation, and then to a single frequently-used pole; in a last step, a larger set of differentiated labels emerge in the group. The onset and duration of each of these stages varies considerably from construct to construct, however, in the grids studied here.

Table 37 indicates the sample in which each of the major types of response reaches its peak for each construct. For every construct responses which fail to give an answer or offer a simple negation of the supplied pole (e.g., 'not good' as the opposite of 'very good') occur more frequently at nine than in any of the older samples, though there is a considerable degree of interconstruct variation in the individual proportions (supplementary table 17). If scores at seventeen

Table 37: Sample in Which Each Type of Label for Construct Poles Reaches Its Peak

	Type of Label[1]		
Construct Label	No Response or Negation of Supplied Pole	Non-Negative Mode	Less-Frequent Poles
Very good	Age 9C[2]	Age 9C	Age 17S
Disturbing	Age 9C	Age 13S	Age 17S
Dull	Age 9C	Age 13S	Age 13S
Works out as expected...	Age 9C	Age 17S	Age 17S
Teaches a lesson	Age 9C	Age 13S	Age 17S
Original	Age 9C	Age 13C	Age 17S
Easy to understand	Age 9C	Age 9C	Age 17S
Could happen to me...	Age 9C	Age 13S	Age 17S
Ends happily	Age 9C	Age 17S	Age 13S
Slow-moving	Age 9C	Age 9C	Ages 13S & 17S
Full of violence	Age 9C	Age 17S	Age 13S
Well-written	Age 9C	Age 13S	Age 13C
Completely absorbing	Age 9C	Age 17S	Ages 13S & 17S
Makes me think	Age 9C	Age 13C	Age 17S
Simple	Age 9C	Ages 9C & 13C	Age 17S
Serious	Age 9C	Age 13C	Age 17S
One I like	Age 9C	Age 13S	Age 13C
Like real life	Age 9C	Age 13C	Age 17S
Interesting subject	Age 9C	Age 17S	Age 17S
Overall Mode	Age 9C	Age 13S	Age 17S

[1] Mode is based on pooled responses from all samples, including the 60 subjects in the supplementary study, for each construct. Less-frequent poles include all responses which do not fall into either of the other two major categories. The data on which this table is based are included in detail in supplementary table 17.

[2] Samples from the comprehensive school and its drawing area are designated 'C', those from the selective schools 'S'.

can be taken as relatively mature, they can be used as a baseline to examine the relative meaningfulness of constructs at younger ages. By this criterion, the constructs 'very good', 'one I like', 'slow-moving', 'simple', and 'ends happily' are the most competently handled at nine, and 'could happen to me or my friends', 'teaches a lesson', 'completely absorbing', 'makes me think', and 'like real life' are the least fully understood. This second list is to some extent validated by the fact that during testing, these were among the constructs which the nine year olds were most likely to ask about.

The modal response to each construct peaks during the samples of intermediate age; the few exceptions involve fluctuations of only a few percentage points and are not statistically significant. The modal responses seem to reflect the first stage of a publicly negotiated meaning, centering around a simple binary contrast between two poles--the sort of contrast that was central to the development of Kelly's (1955) personal construct theory. In the seventeen year old sample, however, a new sort of pattern is beginning to emerge, in which a wide range of different poles are offered by the group as a whole--poles which represent neither the modal response nor the negation of the supplied pole.[5] This proliferation of labels was also observed in Carver's (1967) study, where it was interpreted as reflecting the greater verbal fluency of the older subjects. From the perspective adopted here, it seems to represent a further differentiation of the construct as the poles develop a number of closely related yet still slightly different contrasts.[6]

Between-construct variation in the sorts of poles provided even by the oldest age group is related to what Roger Brown (1958) has called their 'codability'. Codability is essentially the ease with which a concept can be discussed, as reflected in the availability and economy of a generally recognized verbal label. One simple measure suggested by Brown is the number of letters in the words used to label the concept: the more letters, the lower the codability. Clearly the constructs supplied on the grids vary considerably by this measure, from 'simple' to 'works out as you would expect in the end'. If the number of subjects giving no response or a simple negative for the pole of each construct is compared with codability as measured by this index, a very clear relationship emerges: the least codable constructs are much more likely to be given a negative pole, or to have their pole omitted, than are the most codable constructs in this set. This is interesting and lends some credence to the argument that 'no response' and simple negations are used when the construct is giving difficulty.[7]

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[5] An alternative explanation might be that the seventeen year old sample, which is smaller than the others, had its own, different modal response to each construct; this was not the case. The number of less-frequent poles rather than the total number of different poles is used here because it is independent of sample size.

[6] A caveat is needed here: the argument would be stronger if the data were based on the ability of each subject to provide a multitude of labels for each pole, instead of on a diversity of within-group response. The intermediate stage in which the modal response becomes more prominent lends support to the suggested interpretation.

For a few of the constructs, the elicited poles suggest a clear shift in meaning as age increases, rather than a gradually more accurate approximation to a socially negotiated, public meaning of the terms. 'Dull' is one of these, with 26.7 percent of the nine year olds and 33.3 percent of the thirteen year olds at the comprehensive school using 'bright' or 'sunny' as the pole instead of 'interesting' or 'exciting', which are dominant in the other groups. 'Original' is another which shows a shift in meaning, with the thirteen year olds opposing it to 'copied' in the sense of using someone else's work as your own; the older students do not agree on a different label, but begin to evidence understanding that a work may either follow or ignore conventional patterns of expectations. Poles for the constructs 'easy to understand' and 'simple' both show a gradual shift from an emphasis on 'difficulty' or 'hard' at the younger ages, to a concern with complexity and depth among the older students.[8]

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[7] For these comparisons, the constructs were rank ordered by codability and by the number of immature responses (i.e., negatives or no response), and dichotomized at the median of each scale. Of the 10 constructs showing the highest proportion of immature responses, all but 2 are among the 9 least-codable. Using Fisher's Exact Test (Siegel, 1956), the difference is significant at the .01 level, two-tailed.

[8] Considering only those responses which are clearly concerned with either 'difficulty' or 'complexity', complex poles for easy to understand rise from 0 out of 16 at nine and 1 out of 22 at thirteen at the comprehensive school, to 3 out of 15 and 9 out of 19 at thirteen and seventeen at the selective school. For simple, complex poles rise from 0 out of 19 at nine and 5 out of 24 at thirteen at the comprehensive school, to 8 out of 18 at thirteen and 15 out of 18 at seventeen at the selective school. Of the contrasts between adjacent age groups, that from thirteen to seventeen at the selective school is significant at the .05 level, chi-square = 4.33, df = 1.

Patterns of Emphasis

After they had completed rating the stories, subjects given the written grids were asked to indicate which two constructs they considered to be the 'most important', and which two to be the 'least important', of those supplied. Taking the 100 written grids as a whole, 'well-written' is the single most highly valued construct (rated as one of the two most important by 40 percent), followed by 'completely absorbing' and 'interesting subject' (24 percent each), and 'very good' (23 percent); the others appear in the top two less than 20 percent of the time.

Again there are clear age changes within this general pattern. First, the general evaluation 'very good' falls from 30 percent at nine to 5 percent at seventeen; this seems to reflect the increasingly focussed and precise nature of evaluation for older students rather than a de-emphasis of evaluation itself, since 'well-written' and 'completely absorbing' remain high at all ages. 'Makes me think', one of the more direct evidences of treating the work as incorporating ideas or perspectives on the world, rises from 6.7 percent at nine to 10 percent at thirteen in the selective school, and then jumps to 40 percent at seventeen; this parallels the changes discussed in chapters VII and VIII, though the more didactic 'teaches a lesson' does not show a similar increase in popularity. It is interesting, too, that 'ends happily' does not rank highly (4 percent overall, with a high of 10 percent at nine), in spite of reports that mid-adolescents often suffer from 'happiness-binding' in their reactions to stories (Squire, 1964). Similarly with 'like real life' (3 percent overall) and 'could happen to me or my friends' (0.0 percent), neither of which provides any evidence that realism *per se* is highly regarded by these students.

There is less consensus in the constructs rated as least important. Only two--'could happen to me or my friends' (28 percent) and 'ends happily' (25 percent)--are rated as unimportant by as many as one-fifth of the students. This question proved more ambiguous than that on the most-important constructs, however; comments during administration as well as the nature of the responses suggest that some students interpreted it as a request for the two characteristics which they least liked to find in a story, while others took it (as it was meant) as a request for the two characteristics which were least relevant in determining their reaction. Still a few age-changes are evident and of interest: 'dull' becomes less irrelevant (dropping from 40 percent at nine to 5 percent at seventeen) as its meaning changes; 'could happen to me or my friends' becomes less important, its ratings increasing from 6.7 percent at nine to 50 percent at seventeen; 'ends happily' shifts similarly, from 10 percent to 45 percent; while 'slow-moving' begins at 30 percent at nine but disappears altogether from the list of unimportant constructs at seventeen. (Data on least- and most-important constructs are reported in detail in supplementary tables 18 and 19.)

Degrees of Freedom

The number of constructs which are being meaningfully and differentially applied to a sample of elements from a specified domain is a direct measure of what earlier has been called the 'degrees of freedom' in a construct system. Several questions in the interviews and the open-ended questionnaire yielded measures of the number of different constructs elicited from each student, and in each case the average shows a significant increase with age.[9] Reasons for liking or not liking stories rise from a mean of 1.4 constructs elicited at six to 8.4 at seventeen; ways in which poems, stories, and rhymes differ from one another rise from 1.1 at six to 2.8 at nine; reasons for rereading (or not rereading) a story or poem rise from 0.9 at nine to 1.6 at seventeen; and reasons for reading a book with a teacher or at home rise from 1.1 at nine to 1.8 at seventeen. The evidence from the various measures of meaningfulness derived from the grids is less direct, but also on balance suggests that more constructs are being meaningfully applied by the older students than by the younger ones. Though polarity falls with age and total within-grid variation remains essentially constant, the younger children have more difficulty in labelling construct poles, have a much higher bias in their ratings, and show less between-subject agreement in the rating of story-types.

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[9] Using analysis of variance for the first two sets of data, median tests on adjacent age-groups for the second two sets. In each case, opposite poles reflecting the same discrimination (e.g., happy-sad) were counted as a single construct, however many times either or both were used in the course of a response.

In its most extreme form, the degrees of freedom in a grid can be limited by treating various elements or constructs as identical, and hence giving them the same ratings. The likelihood of this is to some extent constrained by the size of the grid: every element that is added provides an additional opportunity to discriminate (systematically or by mistake) among the constructs, and every additional construct provides an additional opportunity to discriminate among the elements. For the relatively small orally administered grids, both the number of constructs with variance greater than zero and the number of elements which are not identically construed show significant increases from six to nine.[10] With the much larger written grids, very few of the elements are identically construed at any age, but an average of 2.5 constructs continues to show no variance at nine (compared with 2.2 on the oral grids at the same age). This falls to 0.4 by thirteen and remains low thereafter. All of these data suggest that the degrees of freedom in the construct system increase over the age-span being studied, though again the measures are less precise than might be derived with a construct elicitation procedure.

4. Organization

The way in which a person manages the increased complexity of higher degrees of freedom is to organize the information better. The amount of organization in various psychological systems has usually been investigated under the general rubric of 'cognitive complexity'; such studies usually attempt to estimate the number of independent dimensions of variation present within a given psychological domain (cf. Crockett, 1965). This section will similarly be concerned with the nature and relative importance of independent dimensions in the construing of stories, but this will be treated as structure superimposed upon a construct system already demonstrated to grow richer--and in that sense more complex--with age.

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[10] The number of constructs rises from 5.8 at six to 7.8 at nine, the number of elements from 6.4 to 7.1. Multivariate F for age = 4.42, df = 2;39, $p < .02$, with sex and interactions showing no significant differences.

Dimensionality

Dimensionality is concerned simply with the number of independent dimensions of variation present in a data matrix. The procedure that will be used here, both to study the number of dimensions in the grids and later to study the nature of the various dimensions, is principal components analysis.[11] This is a procedure which statistically transforms the observed relationships among constructs and elements into a new matrix in which the dimensions are uncorrelated with one another. This new set of dimensions (or components) is ordered in terms of the relative amount of information which each dimension organizes. Mathematically there is no reason to place more importance upon an earlier dimension than a later one; all of the dimensions are 'real' in terms of the observed matrix, and even very small dimensions that emerge late in the analysis may appear consistently in different samples and have predictive importance in terms of some external criterion of interest (cf. Slater, 1964). Still, the first few components often account for the majority of the observed variation, and can be used as a parsimonious means to summarize the most important aspects of the data matrix--or in our case, to indicate the most important dimensions of construing.

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[11] The literature on this procedure and on factor analysis in general is vast. Dempster (1969) provides a comprehensive discussion of the underlying mathematical theory; Cattell (1966) includes many discussions of its applications in a psychological context; Slater (1965, 1972b, 1972c) describes its use in the context of grids, as well as further details about the specific form of the analysis used in the present study.

In the present series of studies, a principal components analysis was carried out separately on each grid, using the facilities of the Medical Research Council's grid analysis service (Slater, 1965, 1972b). Since it was assumed that the importance of the constructs would change with age, the construct grades were not standardized before carrying out the components analysis; this gives constructs with higher variation greater weight in determining the structure that results.[12]

The dimensionality of a data matrix is constrained only by its size, unless some of the constructs are identically applied or some of the elements identically construed. For the relatively small orally administered grids, there is in fact a discernable (but not statistically significant) increase in the number of independent dimensions, from 5.0 at six to 5.8 at nine (out of a maximum of 7.0). In virtually all cases, the dimensionality is reduced because two or more elements are identically construed, receiving the same ratings on all of the constructs, rather than because of restricted variation on the constructs themselves. On the much larger written grids, almost all have the maximum of 8 independent dimensions, with only 9 out of the 100 (5 of these at age nine) having fewer. (Again, when the dimensionality is constrained on these grids it is because of identically construed elements.) Within such limits, dimensionality becomes a question of how many components are 'significantly' large, but unfortunately there is no general statistical solution to this problem (though there are a number of more or less ad hoc criteria; cf. Cattell, 1966). This leads us to ask instead about the relative importance of the various dimensions in each grid: do one or two components seem to dominate? are there many small ones of approximately the same size? or is there a gradual falling off from large to small with no clear discontinuities?

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[12] Components are taken on the matrix of sums of squares and cross products of the raw scores.

At all ages in the present study, the first component in each grid accounts for an average of 43 to 55 percent of the total within-grid variation, the second component for another 19 to 26 percent, and the third for 12 to 15 percent more (table 38). Though some of the fluctuations

Table 38: Proportion of Variation in Ratings of Stories Accounted for by Components One to Six

		Average Percent of Total Variation					
		Oral Grids		Written Grids			
		Interviews		Comprehensive School		Selective Schools	
		Age 6 (n=21)[1]	Age 9 (n=22)	Age 9 (n=30)	Age 13 (n=30)	Age 13 (n=20)	Age 17 (n=20)
1. First Component:	Boys	48.0%	52.2%	43.7%	55.3%	49.2%	44.3%
	Girls	50.4	57.3	42.8	48.4	41.5	49.1
2. Second Component:	Boys	27.6	28.0	20.2	17.6	21.4	21.0
	Girls	24.8	23.0	21.5	21.2	23.1	22.5
3. Third Component:	Boys	14.5	11.7	14.0	11.2	10.8	13.5
	Girls	14.6	12.5	13.8	11.8	13.2	11.4
4. Fourth Component:	Boys	6.6	6.1	9.3	6.7	7.6	8.3
	Girls	6.6	5.4	9.6	7.6	9.2	6.7
5. Fifth Component:	Boys	2.8	1.4	5.9	4.2	4.7	5.9
	Girls	2.6	1.3	5.9	4.9	5.7	4.5
6. Sixth Component:[2]	Boys	0.5	0.5	4.0	3.8	3.3	3.8
	Girls	0.9	0.5	2.9	3.0	4.0	2.9
Multivariate F-Statistics[3]		6 vs. 9		9 vs. 13	13 vs. 13	13 vs. 17	
Age (or school)		1.34		4.19***	1.61	1.32	
Sex		1.73		2.69*	2.24	0.26	
Interaction		0.19		0.91	1.64	1.88	
(df for each effect)		(6;34)		(6;51)	(6;41)	(6;31)	
Univariate Effects (.05)							
Age (or school)		-		1,3,4,5,6	1,4,6	-	
Sex		2		2	1,4,5	-	
Interaction		-		-	-	1,3,4,5,6	

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[1] Omitting 1 girl with no variation on any construct.

[2] The orally administered grids have a maximum of 7 roots, the written grids a maximum of 8. The seventh averages less than 0.1 percent on the oral grids at six and nine.

[3] Based on the first six components. For the oral grids, the effects are not orthogonal because of the disproportionate cell sizes; in each case an effect is tested after allowing for the influence of other effects.

*$p < .05$
**$p < .01$
***$p < .005$

between the various groups studied are statistically significant, overall the striking feature of the results is the lack of major shifts in the proportion of the variation accounted for by the various components; individuals at all ages seem to impose roughly the same amount of structure upon these sets of spectator-role constructs, concentrating the variation in their ratings in a few major dimensions. The number of components which individually account for 10 percent or more of the within-grid variation averages roughly 3, ranging from a high of 3.2 to a low of 2.7; these three components account for an average of 90 percent of the variation in the oral grids, and 80 percent in the larger, written grids.

These findings are consistent with those from developmental studies undertaken using the semantic differential, a technique which provides a matrix of scores very similar to that from a repertory grid. The correspondences are to some extent misleading, however, and obscure important methodological as well as conceptual differences in the two approaches. Semantic differential scales (comparable to our constructs) are applied metaphorically: often the scales do not bear any direct relationship to usual processes of construing the 'elements', and raters are urged to respond quickly and intuitively. When the scales are too directly applicable to the elements, what has been called 'denotative confounding' may occur, as a result of the scales being applied literally rather than metaphorically. From our point of view, such denotative 'confounding' is part of the normal process of construing, and often the part in which we are most interested. Still, in spite of these differences, developmental studies with the semantic differential have found that, at the level of the pooled, group dimensions in which they have been interested, the proportion of variation accounted for by the early components remains remarkably consistent across age groups (Miron and Osgood, 1966). Here we have found a similar consistency in a new area, and have demonstrated that it is characteristic of individual rather than group patterns of response.

If we consider our findings that 1) more constructs are used by the older children than by the younger, and 2) the proportion of within-grid variation explained by the early components remains essentially stable with age, then ~~the portra~~it which emerges is of dimensions which become increasingly 'deep' or 'rich' with age. Perhaps through processes of articulation and entrainment such as those discussed in the first chapter, an initial simple discrimination between 'good' and 'bad', say, will become a composite built up out of many related, contributing constructs. Thus at six, the variation accounted for by the first component is on the average equivalent to 2.8 times the mean per construct variation (ignoring constructs with no variation at all in each grid); this rises to 4.3 times the average per construct variation by nine.[13] Though analyses such as these do not measure hierarchical depth directly, a system of superordinate and subordinate construct relationships would be one way of explaining the results.

Convergence in Patterns of Construing

The particular shape which the structure in a grid takes can be expressed as a set of correlations among the constructs or--more conveniently for many calculations--geometrically as angular distances between construct-pairs. Every grid generates a set of angles relating each construct to every other construct in the grid, and these angles can in turn be used to compare the extent to which the construct systems of different subjects are similarly organized. Two subjects can have identical angles between constructs even if their ratings on specific stories are totally unrelated; thus it makes sense to look at convergence in angles between constructs just as earlier we looked at convergence in ratings of story-types.

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[13] This measure of size was calculated for each grid separately and then averaged. The difference between the ages is significant at the .001 level, t = 4.25, df=42, two-tailed.

Again, intraclass correlation coefficients provide a measure of convergence. These are summarized in table 39 and show that as age increases, the construct systems of these subjects steadily converge toward an agreed pattern of organization. Between-subject similarity as measured by this index rises from nearly zero at six to a substantial .55 at seventeen, considerably higher than the figures reported earlier for convergence in ratings on story-types. There are difficulties with this measure as applied to the angles in the grids for the younger children, however, which may obscure a more substantial degree of between-subject agreement for them as well. The two factors of most importance are the restricted variation on some of the constructs, and the high degree of bias.

Table 39: Between-Subject Consistency in Relationships Among Constructs Relevant to Stories

	Intraclass Correlation Coefficients[1]					
	Oral Grids		Written Grids			
			Comprehensive School		Selective Schools	
	Interviews					
	Age 6 (n=22)	Age 9 (n=22)	Age 9 (n=30)	Age 13 (n=30)	Age 13 (n=20)	Age 17 (n=20)
All Students	.014	.184	.193	.458	.512	.552
Boys only	.037	.160	.189	.477	.536	.553
Girls only	.016	.180	.222	.468	.471	.556

[1] For the oral grids, these coefficients are based on 45 separate angles for each subject, for the written grids on 190. In the comprehensive school, a self-selected sample of 5 boys and 2 girls at age 17 had an intraclass correlation of .507.

A construct with no variation within a given grid will have a zero correlation with every other construct. Often, this zero correlation is at the furthest possible extreme from the correlation that emerges when the constructs in question both do vary: 'very good' and 'one I like', for example, are highly correlated in all of the grids where both are used, but both show no variation (and have a zero correlation) in a substantial proportion of the oral grids. Some idea of the magnitude of this effect can be drawn from the six year old sample: here the average correlation between the two constructs is .289 if all grids are used, but .946 if only those grids in which both constructs have variation greater than zero are included.[14] It may be that zero correlations emerging from constructs with variation restricted in this way, though interesting in the context of individual grids, are better treated as 'missing values' about which the grid has not provided any information when average relationships across the group are being considered.

The second complication in the use of intraclass correlations stems from the high degree of bias in the younger children's ratings: with most of the stories clustering toward one end of each construct, the correlations between constructs are sometimes determined by one or two deviant ratings; these may in turn be shaped more by the particular characteristics of the story being rated than by the general relationship between the constructs in question. (Similar difficulties in earlier grid formats led Bannister to constrain subjects to divide elements equally between the poles, and later to rank-order them; cf. Bannister and Fransella, 1971.) Since the effects of both bias and restricted variance would tend to reduce the intraclass correlation for a given group, there are reasons to move on to look for group patterns of construing even in the youngest samples where, at first sight, the intraclass correlations would suggest there is no convergence at all.

5. Construct Systems at Six and Nine

Group Patterns

Structure can be examined either in the individual grids or by pooling the grids from a given sample.[15] The pooled matrices have the advantage of offering a parsimonious summary of trends at each age, and of minimizing the sorts of distortions discussed above; the individual analyses have the advantage of directly presenting personal construct systems. Here we will begin by looking at the results for each age-group and will then compare those results with the individual analyses.

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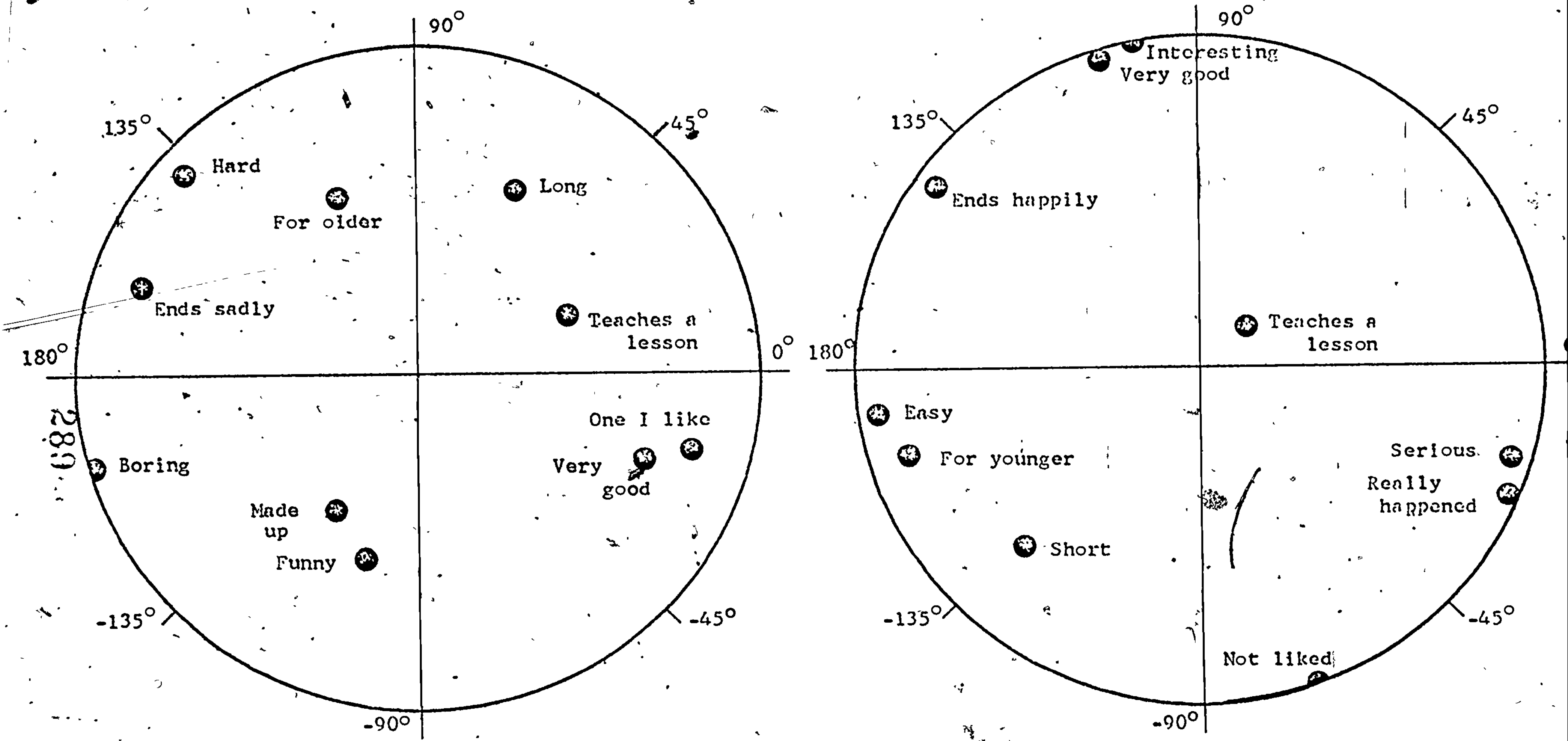
[14] These and all other average correlations in this report are calculated as cosines of average angular distances.

[15] There are a number of ways in which this pooling can be carried out; the analyses reported here are based on data matrices of 10 constructs by 176 elements (8 each from 22 Ss at each age), ignoring the categorization into story-types.

At both six and nine, there are four dimensions each of which represents 10 percent or more of the total variation in the group matrix; these dimensions are summarized in table 40, with the three largest displayed graphically in figure 3. Before moving on to discuss them, however, a brief digression on the meaning of the tables and figures may be in order. The dimensions that result from a principal components analysis are orthogonal: graphically they define angles of 90 degrees with one another and numerically they are uncorrelated. Simply put, knowing how a story is construed in terms of one of these dimensions tells us nothing whatsoever about how it will be construed on another. The size (ignoring signs) of the 'loadings' on a component define the new scale which the variation along that component represents: a high loading means that a construct is relatively important in defining the dimension, a low loading that it is more or less irrelevant to it.

In mapping a construct system as in figure 3 (below), each construct is treated as an axis of the sphere defined by the first three principal components. All of the constructs and components intersect one another at the center of the sphere, and each touches the surface of the sphere twice, at opposite sides. The higher the correlation between any two of these axes is, the smaller will be the angle between them where they meet at the center of the sphere, and the smaller the distance between them where they touch the surface. If one thinks of a map of the earth, then the perspective adopted in the maps is that of looking down from above the North Pole: the center of each map represents the pole, and the circumference corresponds to the Equatorial circle. One pole of each

Figure 3: Spherical Maps of the First Three Components of Variation at Ages Six and Nine


90°
135°
45°
180°
0°
-135°
-45°
-90°
Hard
For older
Long
Ends sadly
Teaches a lesson
One I like
Very good
Boring
Made up
Funny
90°
135°
45°
180°
-135°
-45°
-90°
Interesting
Very good
Ends happily
Teaches a lesson
Easy
For younger
Short
Serious
Really happened
Not liked

Hemisphere A at Age Six
(54.5 percent of total variation)

Hemisphere A at Age Nine
(64.5 percent of total variation)

Table 40: Principal Components of Orally Administered Grids[1]

	First Component				Second Component			
	Age 6		Age 9		Age 6		Age 9	
	Loading	(Correlation)	Loading[2]	(Correlation)	Loading	(Correlation)	Loading	(Correlation)
1. Very good-not	5.9	(.411)	4.0	(.261)	-1.6	(-.115)	12.4	(.816)
2. Teaches a lesson-doesn't	11.4	(.444)	-4.5	(-.191)	4.4	(.173)	4.1	(.175)
3. Really happened-made up	5.9	(.245)	-3.7	(-.374)	9.7	(.399)	-1.6	(-.167)
4. Easy to understand-hard	15.3	(.584)	16.6	(.768)	-13.3	(-.512)	-2.3	(-.108)
5. Ends happily-sadly	18.6	(.742)	2.2	(.293)	-5.7	(-.229)	1.5	(.204)
6. Interesting-boring	13.1	(.631)	2.9	(.178)	4.0	(.193)	13.5	(.840)
7. Long-short	7.8	(..308)	-11.7	(-.534)	14.7	(.577)	12.0	(.552)
8. For older-for younger	-3.0	(-.153)	-10.0	(-.620)	8.2	(.412)	3.0	(.183)
9. Serious-funny	4.6	(.179)	-15.2	(-.635)	16.5	(.636)	-4.9	(-.204)
10. One you like-don't	4.4	(.359)	4.4	(.277)	-1.7	(-.139)	12.6	(.788)
Latent root	1062.8		826.1		902.2		700.8	
Percent of variation	21.0%		25.6%		17.8%		21.7%	

	Third Component				Fourth Component			
1. Very good-not	1.7	(.116)	0.9	(.060)	1.2	(.084)	4.5	(.299)
2. Teaches a lesson-doesn't	15.6	(.610)	22.3	(.947)	13.3	(.518)	-3.5	(-.149)
3. Really happened-made up	-12.6	(-.518)	0.1	(.012)	11.2	(.463)	-0.9	(-.090)
4. Easy to understand-hard	-2.9	(-.111)	1.2	(.056)	-5.3	(-.203)	7.4	(.340)
5. Ends happily-sadly	-4.3	(-.173)	0.3	(.037)	0.8	(.032)	1.4	(.180)
6. Interesting-boring	-0.2	(-.012)	0.1	(.007)	-3.2	(-.155)	3.8	(.238)
7. Long-short	11.4	(.446)	-7.2	(-.328)	-12.7	(-.501)	-4.5	(-.207)
8. For older-for younger	6.7	(.337)	-1.9	(-.116)	2.7	(.136)	-2.0	(-.123)
9. Serious-funny	-13.6	(-.523)	1.7	(..069)	-3.1	(-.121)	17.7	(.739)
10. One you like-don't	2.4	(.196)	-0.2	(-.011)	1.5	(.121)	5.3	(.332)
Latent root	796.9		556.4		524.4		469.7	
Percent of variation	15.7%		17.2%		10.4%		14.5%	

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[1] Principal components from the group raw score sums of squares and cross products, based on a data matrix of ratings of 10 constructs on 176 stories at each age. Loadings representing 20 percent or more of the average variation per construct at each age are underlined; these 20 percent points are 10.0 at six and 8.1 at nine.

[2] Signs reflected.

construct will fall into each hemisphere, so that only one half of the sphere is actually mapped.

In these maps, each construct is portrayed as though it touched the surface of the sphere; this introduces a certain amount of distortion, in that it depicts the constructs as though each had equal weight in determining the structure. This is not necessarily or even usually the case, since the total variation differs from construct to construct, as does the proportion of that variation explained by the three components depicted. (Both the total variation and the proportion of variation explained by the first three components for each construct are reported in supplementary table 15.) For these reasons, the 'loadings' given in table 40 offer in some ways a better starting point in interpreting the nature of the components; these loadings reflect the exact contribution of each construct to the total variation along the dimension. Though principal components analysis imposes a purely mathematical structure upon the data matrix, it is possible to use the loadings to interpret the structure in more general, albeit also more arbitrary, terms: we can ask if the patterns of loadings are such that we can specify a superordinate construct which subsumes the constructs with large loadings, and which is irrelevant to those with low loadings. Labelling the dimensions in this way will make it simpler to discuss the results and to relate them to other findings about the development of literary response, but in talking about labelled components it is necessary to remember that we are simply using a convenient short-hand for a complicated set of results.

Turning now to the specific results, we find that at six the dimensions are relatively loosely defined. The first component seems to represent what in the older samples will emerge as separate dimensions of 'evaluation' and 'simplicity'; 'ends happily' has the highest single loading and 'teaches a lesson' is also closely related to it. The main evaluative constructs, 'very good' and 'one you like', have low loadings but at least moderate correlations. They are more closely related to the first component than to any of the others, but because their own variation is small they have relatively little effect on the structure that results. The second component is concerned with the extent to which the story is construed as short and funny or long and serious; it seems to mark the beginning of a concern with 'simplicity' separate from the general judgment involved in the first component. The third clusters stories which are long, funny, and made up, and which teach a lesson; the fourth is similar, but this time with 'teaches' joined with 'really happened' and 'short'. Later components reflect residual patterns, or are dominated by single constructs.

At nine, the structure has become much clearer. The first dimension of construing is related to the 'simplicity' of the story; its poles separate stories which are construed as hard, long, serious, and for older children, from easy, short, funny ones for younger children. (In this form it is closely related to the second component of variation at age six.) The second component at nine is clearly concerned with making an evaluation of the story: is it one that is liked, good, interesting, and long? The third and later components are defined by single constructs or low residual loadings; they represent for the most part the lack of any further organization among the separate constructs in the system.

The rather amorphous first component at six and its disappearance at nine (where distinct dimensions of simplicity and evaluation appear) is related to the heterogeneous variances of the constructs. 'Ends happily', which has the largest loading on the first component at six, shows the greatest shift of any construct; its standard deviation falls by more than 50 percent between the two ages. At the same time, the variances of the evaluative constructs all increase, giving them greater weight in determining the structure. Their relative lack of importance before nine parallels findings recently reported by

Cermak, Sagotsky, and Moshier (1972). Studying encoding processes for single words, they found that evaluative dimensions were not used at all in their second grade sample, and were used only with great difficulty by their fourth graders; not till sixth grade did they find evidence that evaluation was being clearly and easily used in encoding.

The results also provide some evidence that the matrix at nine is, as a whole, slightly more structured (as the intraclass correlations reported earlier suggest). The four components summarized in table 40 account for 79.0 percent of the total variation at nine, but only 64.9 percent at six; this reflects the fact that each of these early components explains a slightly larger proportion of the variation among the older than it does among the younger children. (The difference in magnitude between these results and those from the analyses of the individual grids is not interpretable because of the differences in the size of the grids; the individual grids are based on ratings of only 8 titles, the pooled analyses, on 176.)

In figure 3, these changes are reflected in the positioning of the construct poles relative to one another on the surface of the sphere. At six, these poles are quite widely scattered, with very little clustering and little tendency toward alignment with the three principal axes. By nine, clearer clusters have begun to emerge, and there is also some shifting toward better alignment with the principal axes; only 'short' and 'ends happily' remain clearly split between two or more dimensions, each falling half way between the horizontal and vertical axes. ('Teaches a lesson', at the center of the figure, is very closely aligned with the 'north-south' axis which corresponds to the third dimension in these figures.) Retrospectively, it is possible to find traces of the structure which emerges at nine in the results at six, but this structure is much less clearly defined.

Individual Patterns

The principal components analyses carried out on the individual grids provide another way to examine typical patterns of construing at each age. It is difficult to compare patterns in different grids, especially so in the oral grids where several constructs regularly drop out of each grid because of a lack of variation. Still, it is possible to roughly define each component in terms of the construct which has the highest loading on it. Taking the first three components from each grid,[16] there are 62 of these at six and 66 at nine (table 41). At six, these are relatively evenly distributed among the possible orientations, with the exception of the 3 evaluative constructs ('very good', 'one you like', and 'interesting'); these define relatively few of the components. At nine, the pattern has become much sharper, with 'teaches a lesson', 'serious-funny', and 'easy' dominating. 'Long' also appears in some of the grids and the evaluative constructs have become slightly more important,

Table 41: Highest Loadings on Components One, Two, and Three of Orally Administered Grids

Construct	Percent of Grids with One Component Oriented Towards the Construct[1] Age 6	 Age 9
1. Very good-not	18.2%	27.3%
2. Teaches a lesson-doesn't	40.9	59.1
3. Really happened-made up	40.9	9.1
4. Easy to understand-hard	45.5	50.0
5. Ends happily-sadly	40.9	0.0
6. Interesting-boring	18.2	18.2
7. Long-short	36.4	36.4
8. For older-for younger	31.8	9.1
9. Serious-funny	36.4	63.6
10. One you like-don't	0.0	18.2

[1] Each component is taken as oriented toward the construct with the highest loading; tied loadings are credited under both constructs. Percents are based on 22 subjects at six and at nine, with 62 and 66 components, respectively, classified in all.

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[16] With the exception of 1 subject who had no variation on any construct and another who used only 2 constructs; both were six year olds.

but 'really happened', 'ends happily', and 'for older-for younger' all drop sharply in emphasis. As a set these changes mirror those in the pooled analyses.

If patterns rather than simply the highest loadings on each construct are considered, the results continue to parallel the group findings, at least at the level of individual components. Here the maps of the group constellations of constructs in figure 3 provide the best summary of what is happening: individual construct systems seem to involve primarily a rotation of the axes of the sphere toward one or another central construct, with the whole structure tightening up around it in a sort of 'halo' effect and, especially at six, many of the other constructs dropping out of the system altogether. The individual patterns do not seem to contradict the group pattern so much as to pick selectively from it. To give some sense of this, 6 grids have been chosen at random from the six year old samples (3 each from the samples of boys and girls) and their results mapped in figure 4 (below). To compare them with the group structure, it is necessary to remember that each diagram represents a sphere which can be rotated in any direction, and that each construct-label represents only one pole of an axis running through that sphere.[17] As one example of what this means, we can look at the two constructs 'hard' and 'for younger children' in Jon M.'s map. These appear on opposite sides of the map and seem very far apart, but they in fact represent two closely related constructs. If the sphere is rotated 90 degrees around its vertical axis, 'for younger' will appear just slightly left of center and 'easy' (the opposite pole of 'hard') will

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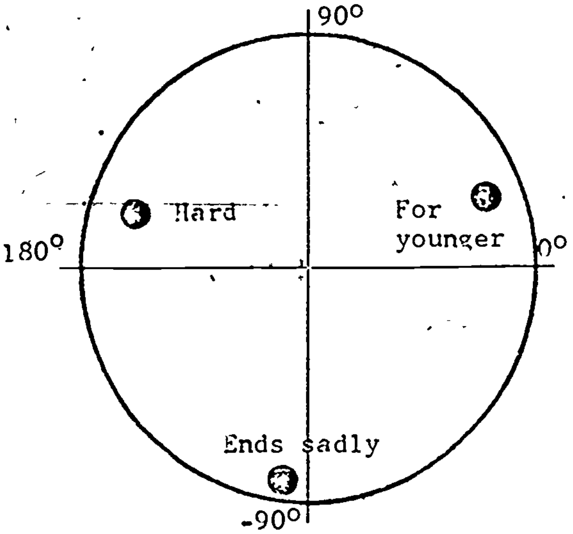
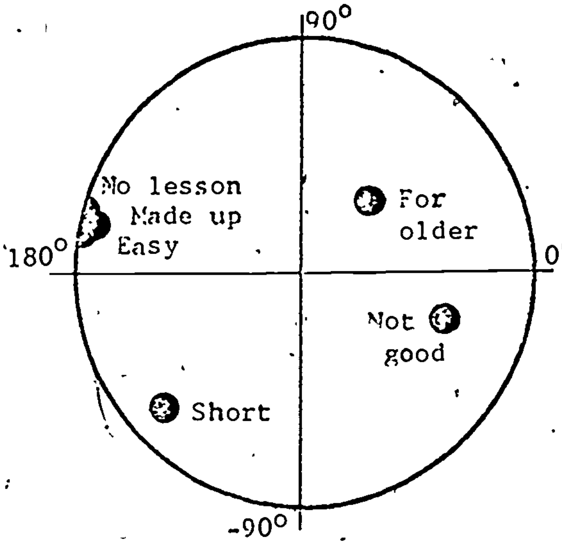
[17] The axes in these spheres are oriented so that they explain the greatest proportion of the initial variation, the next greatest proportion, and so on; in the map, however, they have been arbitrarily equated so that the maps will be spherical instead of ellipsoidal. In this spherical form their orientation is arbitrary: the configuration of constructs can be held fixed and the 3 orthogonal components rotated within it to any criterion desired.

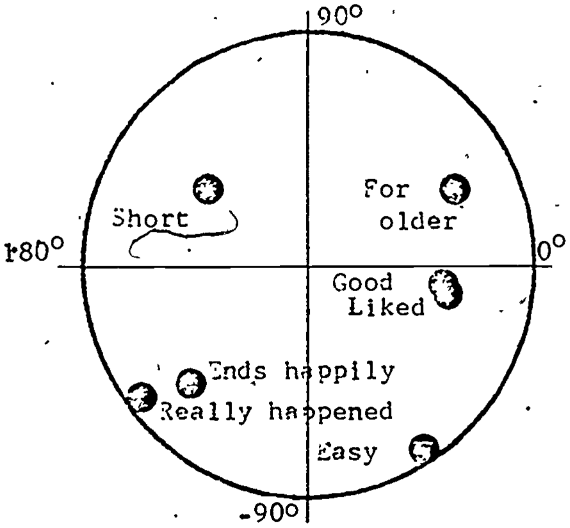
Figure 4: Spherical Maps of the First Three Dimensions of Construing in Selected Six Year Olds



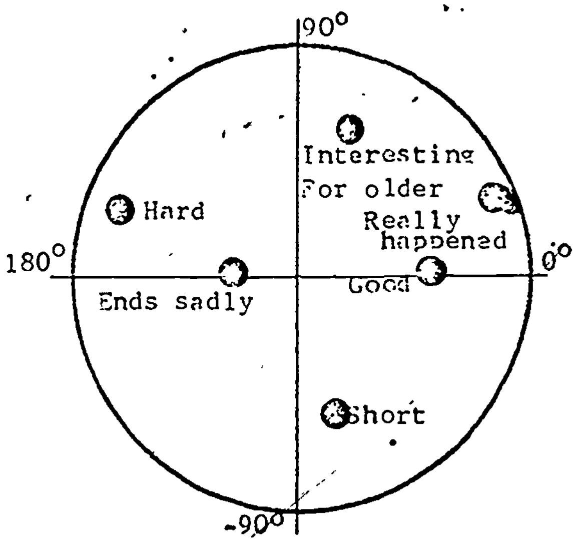
Jon M. (6;2)
100.0 percent of total variation



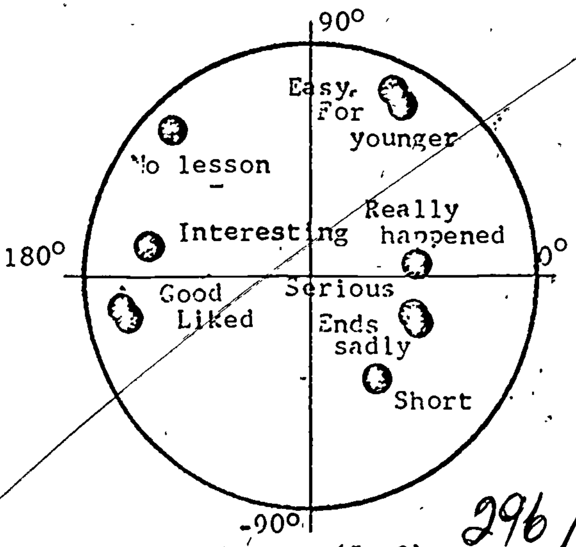
Karen K. (6;0)
99.1 percent of total variation



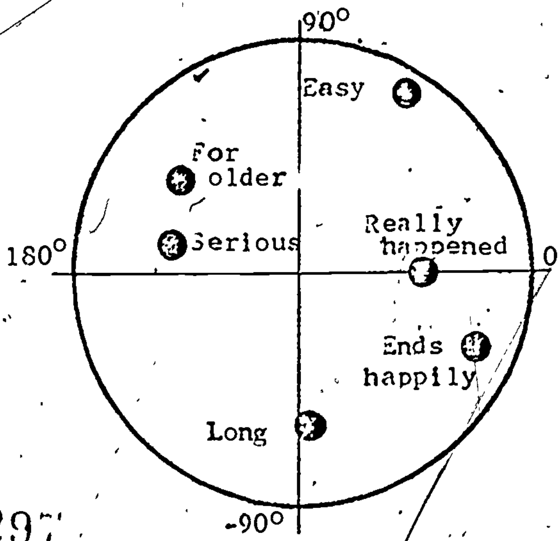
Michael H. (5;12)
86.7 percent of total variation



Teressa H. (5;12)
82.3 percent of total variation



Stephen R. (5;10)
82.5 percent of total variation



Beth B. (5;9)
80.0 percent of total variation

emerge just slightly right of center, below the horizontal axis. Jon, then, as one dimension in his construing of stories separates easy stories for younger children from hard stories for older ones; by rotating the axes in the map for the six year olds slightly, a very similar dimension can be made to appear for the group as a whole.

The question which we cannot answer on the basis of the present data is whether low intraclass correlation coefficients among the various grids at six and nine are the result of stable individual differences in patterns of construing, or of within-subject lack of stable structure in the personal construct systems being studied. Either situation would lead to the sort of results reported, and both are probably to some extent operating in these samples. Lack of reliability in individual patterns is probably especially important at six, an age when thinking in general tends to be more syncretistic and less systematically structured into the sorts of patterns the grids are designed to measure. It would be interesting in another study to measure whether an individual on retesting would show a pattern of construing more similar to his own initial pattern, or to the pattern which emerged from the pooled results from his age group.

6. Construct Systems from Nine to Seventeen

Group Patterns

The oral grids used with nine year olds show two clear, dominant dimensions of construing, one related to evaluation and the other to the perceived simplicity of the stories in question. In the written grids used with the older students, the same two dimensions continue to appear, dominating the results in each sample. Changes in construing as the systems mature seem to center on the relationship of particular constructs to these more general systems, as well as on the emergence of certain minor components of particular interest.

Factor loadings from these various analyses are summarized in table 42, with the first three components of the oldest and youngest samples mapped in figure 5. The first component in all four samples is a general evaluative one, accounting for 20 percent of the variation among the nine year olds; this rises to about one-third for all three of the older samples. This increase in the proportion of the total variation explained represents a general 'tightening' of the construct system around this dimension; the number of constructs showing at least moderate loadings on the first component rises from 10 at nine to 17 at seventeen.[18] Even the construct which these older students add to their grids is systematically related to evaluation, though the specific construct added varies from individual to individual.

Within this general pattern of increasingly tight integration of the constructs into a general evaluative dimension, a number of particular shifts are of special interest. 'Disturbing' shifts gradually from a negative relationship to evaluation at nine (correlating -.350) to a highly positive one (.719) by seventeen; during the same period, 'ends happily' changes from a positive (.198) to a negative (-.474) characteristic. Both of these can be interpreted as results of the tendency of the older students to accept the story as a way of discussing an alternative view of the world, one which may upset their own view and force them to reconsider. ('Makes me think' shows a slight increase in its relationship with evaluation during this period, but its results are complicated by the tendency of the nine year olds to treat this construct as equivalent to 'hard enough to keep me interested' or, alternatively, 'hard enough to teach me to read better'; these alternative construals are also

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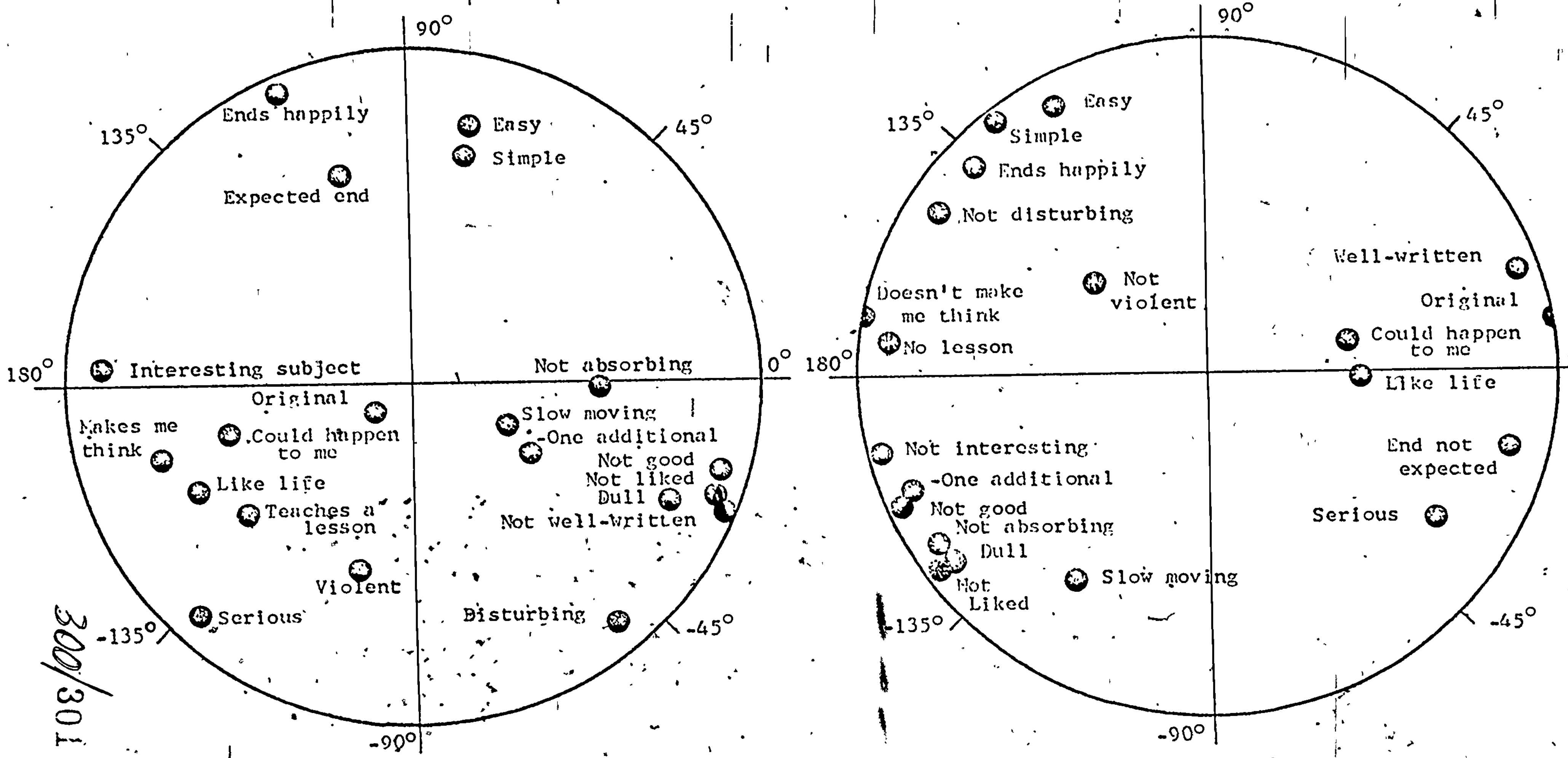
[18] The absolute size of loadings on components of unnormalized (i.e., unstandardized) scores varies with the total variation in the grid--and hence with sample size as well as with changes in the mean square variance. As a criterion for comparing the various grids in this study, 'moderate' loadings were defined as those representing 20 percent or more of the average per construct variation; this is approximately equal to loadings of .45 in the analysis of a correlation matrix.

Figure 5: Spherical Maps of the First Three Components of Variation at Ages Nine and Seventeen



Hemisphere A at Age Nine
(41.0 percent of total variation)

Hemisphere A at Age Seventeen
(57.8 percent of total variation)

Table 42: Principal Components of Written Grids, Part One[1]

	First Component			
	Comprehensive School		Selective Schools	
	Age 9	Age 13	Age 13	Age 17
Construct	Loading(r_{ij})[2]	Loading(r_{ij})[2]	Loading(r_{ij})	Loading(r_{ij})
1. Very good	21.1(.804)	21.2(.830)	14.8(.819)	12.2(.729)
2. Disturbing	-8.6(-.350)	8.4(.306)	11.5(.558)	15.7(.719)
3. Dull	-15.8(-.620)	-18.0(-.677)	-14.0(-.699)	-14.5(-.721)
4. Works out...	4.5(.149)	-10.0(-.378)	-11.0(-.548)	-11.0(-.524)
5. Teaches a lesson	10.0(.354)	16.3(.608)	7.8(.400)	11.4(.562)
6. Original	1.9(.065)	16.9(.640)	10.2(.536)	12.3(.647)
7. Easy to understand	-4.6(-.163)	-0.4(-.015)	-1.6(-.081)	-8.3(-.382)
8. Could happen...	6.5(.258)	10.2(.385)	7.3(.377)	9.3(.422)
9. Ends happily	4.5(.198)	-7.2(-.272)	-6.2(-.327)	-10.3(-.474)
10. Slow-moving	-6.8(-.235)	-12.7(-.460)	-9.7(-.494)	-8.0(-.373)
11. Full of violence	3.3(.125)	9.9(.387)	5.4(.269)	7.0(.320)
12. Well-written	14.4(.624)	13.7(.722)	11.8(.742)	9.8(.665)
13. Absorbing	13.1(.429)	20.4(.795)	17.8(.863)	15.5(.749)
14. Makes me think	19.1(.596)	21.7(.806)	13.9(.685)	17.0(.804)
15. Simple	-5.1(-.169)	-11.6(-.417)	-6.1(-.286)	-10.7(-.479)
16. Serious	15.4(.516)	18.8(.699)	9.5(.455)	12.2(.603)
17. One I like	20.7(.787)	21.4(.817)	17.2(.811)	14.0(.719)
18. Like real life	13.7(.458)	17.4(.628)	13.3(.638)	11.9(.522)
19. Interesting...	20.7(.710)	21.4(.832)	13.5(.767)	13.4(.774)
20. One additional	4.9(.164)	8.7(.320)	8.9(.407)	11.8(.533)
Latent root	3111.3	4780.0	2560.0	2919.3
Percent variation	19.9%	34.4%	32.5%	34.7%
	Second Component			
1. Very good	6.2(.235)	7.6(.299)	6.2(.346)	5.3(.318)
2. Disturbing	-10.5(-.429)	-15.0(-.543)	-7.5(-.362)	-10.3(-.474)
3. Dull	-7.5(-.293)	-9.1(-.344)	-9.5(-.474)	-10.0(-.519)
4. Works out...	13.6(.448)	15.1(.546)	2.9(.144)	2.8(.134)
5. Teaches a lesson	-8.1(-.286)	-2.2(-.082)	-3.6(-.184)	-1.3(-.063)
6. Original	-1.8(-.062)	3.3(.124)	-1.0(-.051)	2.1(.109)
7. Easy to understand	20.1(.706)	18.1(.692)	16.6(.816)	15.2(.705)
8. Could happen...	-1.7(-.066)	-1.8(-.070)	-0.2(-.010)	2.2(.101)
9. Ends happily	10.5(.457)	16.2(.609)	5.7(.298)	9.7(.446)
10. Slow-moving	-4.3(-.149)	-10.2(-.369)	-9.6(-.488)	-12.5(-.581)
11. Full of violence	-11.7(-.443)	-9.1(-.355)	-10.2(-.507)	-6.3(-.290)
12. Well-written	6.2(.270)	5.0(.261)	3.4(.215)	3.4(.231)
13. Absorbing	0.4(.012)	5.7(.222)	6.1(.295)	9.5(.458)
14. Makes me think	-5.6(-.175)	-2.7(-.101)	-6.5(-.321)	-3.1(-.147)
15. Simple	21.7(.718)	14.4(.517)	14.4(.675)	13.7(.611)
16. Serious	-16.1(-.538)	-8.8(-.328)	-13.2(-.635)	-8.2(-.405)
17. One I like	8.6(.326)	9.9(.379)	8.7(.411)	10.0(.512)
18. Like real life	-6.9(-.230)	-1.4(-.049)	-3.6(-.172)	-0.1(-.005)
19. Interesting...	1.1(.038)	3.4(.132)	1.6(.090)	3.1(.181)
20. One additional	2.3(.079)	-1.2(-.044)	-1.4(-.063)	4.5(.205)
Latent root	2057.1	1852.9	1274.4	1278.3
Percent variation	13.2%	13.3%	16.2%	15.2%

[1] Principal components from the group raw score sums of squares and cross products, based on ratings of 270 stories in each of the comprehensive school samples, and 180 stories in the selective school samples. Loadings representing 20 percent or more of the average variation per construct are underlined; these 20 percent points are 12.5, 11.8, 8.9, and 9.2 for the four samples in the order tabled.

[2] Signs reflected.

Table 42: Principal Components of Written Grids, Part Two

	Third Component			
	Comprehensive School		Selective Schools	
	Age 9	Age 13	Age 13	Age 17
Construct	Loading(r_{ij})	Loading(r_{ij})	Loading(r_{ij})	Loading(r_{ij})
1. Very good	-2.8(-.107)	-4.7(-.186)	-3.3(-.185)	-0.8(-.048)
2. Disturbing	2.1(.086)	5.0(.181)	-0.7(-.002)	-3.0(-.136)
3. Dull	5.1(.198)	9.8(.371)	2.4(.122)	2.3(.113)
4. Works out...	8.9(.293)	4.9(.178)	-3.6(-.180)	-2.0(-.097)
5. Teaches a lesson	9.1(.324)	9.9(.366)	-4.0(-.203)	-1.4(-.069)
6. Original	12.8(.442)	3.7(.141)	-2.7(-.142)	0.0(.000)
7. Easy to understand	7.5(.263)	8.0(.305)	3.7(.184)	2.6(.119)
8. Could happen...	5.7(.226)	16.0(.606)	14.2(.728)	12.7(.578)
9. Ends happily	1.0(.045)	4.2(.156)	-5.3(-.276)	2.1(.096)
10. Slow-moving	11.5(.397)	5.9(.214)	2.6(.130)	7.0(.325)
11. Full of violence	9.5(.361)	-2.2(-.086)	-1.7(-.084)	-12.2(-.560)
12. Well-written	-0.6(-.028)	-1.5(-.077)	-4.3(-.267)	0.9(.062)
13. Absorbing	-11.7(.383)	-2.8(-.110)	-0.9(-.046)	-2.8(-.136)
14. Makes me think	7.8(.244)	2.4(.087)	1.4(.069)	-0.5(-.025)
15. Simple	12.1(.400)	6.7(.243)	7.3(.343)	0.9(.041)
16. Serious	2.8(.093)	2.7(.102)	0.2(.009)	5.5(.271)
17. One I like	-2.8(-.105)	-3.9(-.150)	-2.6(-.121)	-1.1(-.056)
18. Like real life	8.3(.276)	13.8(.497)	9.7(.464)	15.1(.662)
19. Interesting...	3.4(.116)	-0.3(-.012)	-0.6(-.037)	-0.6(-.033)
20. One additional	-10.8(-.363)	-7.5(-.275)	3.1(.141)	-1.8(-.080)
Latent root	1233.9	985.5	490.9	664.3
Percent variation	7.9%	7.1%	6.2%	7.9%

	Fourth Component[3]			
1. Very good	-4.6(-.174)	-0.6(-.024)	-0.0(-.000)	2.2(.133)
2. Disturbing	7.9(.320)	6.7(.244)	-1.6(-.078)	-1.2(-.054)
3. Dull	4.3(.169)	1.8(.066)	2.1(.105)	0.4(.021)
4. Works out...	2.7(.090)	-2.6(-.093)	7.8(.388)	4.0(.191)
5. Teaches a lesson	-3.0(-.105)	0.7(.025)	7.3(.373)	5.7(.279)
6. Original	-0.5(-.017)	-3.5(-.134)	-2.2(-.117)	4.8(.251)
7. Easy to understand	5.9(.208)	5.8(.222)	1.6(.080)	-5.6(-.258)
8. Could happen...	9.7(.385)	1.8(.069)	1.7(.085)	-6.1(-.278)
9. Ends happily	-1.8(-.078)	-8.7(-.327)	6.2(.327)	4.3(.199)
10. Slow-moving	0.4(.015)	-4.1(-.148)	-1.1(-.059)	9.0(.421)
11. Full of violence	-3.1(-.118)	5.8(.225)	3.7(.183)	-10.1(-.461)
12. Well-written	-3.3(-.143)	0.8(.041)	-0.1(-.005)	2.5(.170)
13. Absorbing	9.9(.324)	-0.5(-.020)	-0.3(-.016)	-0.9(-.043)
14. Makes me think	5.0(.156)	-3.7(-.137)	-5.0(-.246)	2.3(.107)
15. Simple	2.9(.095)	11.4(.412)	1.1(.050)	-0.3(-.012)
16. Serious	-3.7(-.125)	-8.0(-.296)	3.4(.163)	-2.3(-.116)
17. One I like	-4.8(-.184)	0.6(.021)	-0.4(-.017)	1.7(.086)
18. Like real life	16.1(.539)	3.0(.108)	0.7(.035)	-4.0(-.175)
19. Interesting...	-3.7(-.127)	-1.1(-.044)	0.5(.029)	-0.8(-.045)
20. One additional	18.3(.613)	16.6(.611)	15.3(.699)	10.8(.490)
Latent root	1047.7	726.5	458.3	501.9
Percent variation	6.7%	5.2%	5.8%	6.0%

[3] Signs reflected for all except the nine year old sample.

evaluative.). A gradual co-opting of 'original' and 'completely absorbing' as part of the general evaluation represents less a shift in meaning than an acquisition of one: both of these terms caused vocabulary difficulties for many of the nine year olds. Changes in 'original', however, may also be due in part to changes in what is expected from a story; the related construct 'works out as you would expect in the end' moves from a positive relationship (.145) at nine to a strongly negative one (-.524) at seventeen.

The emergence of this general evaluative factor in all of these samples accords well with previous studies of literary response. In spite of differences in the genres being studied (poetry or prose, in fragments or complete), in the variables (from word counts to rank orderings of preference to semantic differential scales), in the methods of pooling data (across subjects to obtain estimates of 'true' ratings on individual selections or across selections to obtain averages for each subject), and in the statistical procedures used to obtain factors (with and without orthogonal or oblique rotation, using principal components or other methods of factoring, with various estimates of communality), a general factor variously labelled as 'aesthetic judgment', 'evaluation', 'general liking', and so on has consistently emerged.[19]

None of these studies, however, the present investigation included, in themselves demonstrates that this factor is the most important dimension of construing, simply because in one way or another the constructs being studied have been selected by the investigator. Much of the early work was in fact specifically designed to investigate dimensions of preference; the present study was more general in its approach, but the constructs were nonetheless supplied to the subjects and do not represent a random selection from those that each would normally apply to stories. (It is encouraging here that the constructs added to the grid show essentially the same distribution in the Purves-Rippere subcategories as those that were supplied.) We can conclude quite reasonably that evaluation is a major dimension of construing, but there is no data yet to demonstrate that it is the major dimension. Its size relative to the other components in the analysis is to an indeterminable extent an artifact of the particular constructs and story-types used; indeed, in the selections used for the oral and written grids at age nine, evaluation emerges as the second and first component, respectively, not uniformly as the largest.[20]

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[19] Cf. Carroll (1960), Gunn (1951), Harpin (1966), Vine (1970), Williams, Winters, and Woods (1938); for general summaries, see Squire (1969), Purves and Beech (1972), and D'Arcy (1973).

Evaluation as it emerges in these samples bears a close resemblance to the general dimension of 'evaluation' that has emerged repeatedly and consistently on the semantic differential. In developmental studies with the semantic differential, however, the structure of evaluation has tended to stabilize at adult patterns at about the age of nine (Miron and Osgood, 1966). Our results suggest that while that may be true with the semantic differential's generalized, metaphorical approach, very clear and meaningful differences in structure continue to appear at later ages in the more focussed dimension of evaluation in the spectator role.

The second dimension of construing which emerges from all of the samples is related to how simple the story is judged to be; this accounts for from 13 to 15 percent of the total variation at each age and, like evaluation, shows a gradual increase in the number of constructs which are at least moderately related to it. Two constructs--'easy to understand' and 'simple'--are consistently related to this second component; the others vary in their loadings from sample to sample, for the most part not as dramatically or consistently as occurred for the first dimension. 'Works out as you would expect in the end' becomes less strongly related to simplicity in the older samples, a change that in part reflects its gradual absorption as a reason for not liking stories. 'Slow-moving' becomes more strongly (and negatively) related as age rises, however, which may be the result of a greater acceptance on the part of the older students of slow, difficult, but still good stories--thus reducing its relationship to evaluation. 'Dull' becomes more closely (again negatively) associated with simplicity at the older ages, probably because of the changes in its meaning (discussed above). Finally, two of the evaluative constructs increasingly share some variation with the second component: both 'completely absorbing' and 'one I like' (but not 'very good' or 'well-written') are tied with 'easy' stories by the older students. This is the first evidence we have had of any separation of personal from public systems of construing (or of 'liking' from 'judging'), and will be considered in more detail in the next chapter.

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[20] This is a problem which can have no final solution, even with elicited rather than supplied constructs. The relative importance of a component of variation will vary with the particular context in which it is measured, and there are many different contexts which are of interest.

A similar dimension contrasting simple and complex works has also been described in studies by Eysenck (1940) and Britton (1952), though they were concerned with preference orderings among poems rather than with general processes of construing. It may also be related to 'abstractness' in Carroll's (1960) studies of prose style; this clustered profound, abstract, and 'hazy' works with 'complex' ones. Finally, semantic differential studies have found a 'potency' factor which is in many ways similar, and which seems to reflect the amount of 'work' or effort associated with a given element (Osgood, Suci, and Tannenbaum, 1957).

Considering changes in construct meanings and in loadings across the full age range, this dimension of simplicity in construing stories shows a gradual but clear redefinition: for the youngest subjects its pole is usually 'hard', reflecting primarily the length and reading difficulty posed by the work; for the older, its pole tends to be 'complex' or 'serious'. Some further sense of these changes emerges from looking at typical pairs of stories which individual children place at opposite ends of this dimension:[21]

Simple - Not Simple

Three Little Pigs - Bedknobs and Broomsticks (Dennis D., 9;8)
Sleeping Beauty - Treasure Island (Roger S., 10;1)
Disneyland Stories - Book of Modern Heroes (Alice L., 9;11)
The Princess and the Pea - The Silver Sword (Faye C., 9;11)

The Hobbit - Great Expectations (Walter N., 17:5)
Ice Station Zebra - The Go-Between (Noel G., 17;11)
Cider with Rosie - Hard Times (Fran W., 17;5)
1984 - Far From the Madding Crowd (Holly O., 17;3)

Among the nine year olds, this contrast is to a large extent between stories intended for different audiences: fairy stories and children's books versus ones directed at children nearer early adolescence. (It is useful to recall here that on the oral grids at nine, the comparable dimension of simplicity had the construct 'for younger children' strongly associated with it.) Among the seventeen year olds, the contrast is between simple and complex books, all of which are adult; this is the sort of contrast that has been found in earlier investigations, which have for the most part used relatively mature students. Corresponding to this shift in the composition of 'simplicity', there may also be a reduction in its importance relative to 'evaluation'. On both the oral and written grids at age nine, the first and second components are of nearly equal size; by seventeen they differ by a ratio of some two to one.

The next dimension to appear with any regularity in the four samples is related to the 'realism' of the story, and accounts for from 6 to 8 percent of the variation in each case. This emerges as the third component in the three older samples, but only as the fourth in the nine year olds' grids. It is defined primarily by the constructs 'could happen to me or my friends' and 'like real life', but the first of these is relatively unimportant to the nine year olds: they apparently discriminate between stories which are 'like real life' and those which are not, but do not see much connection between any of the stories and their own lives. (Their ratings average 4.2 on a scale ranging from '1' for stories that they 'agree completely' could happen to them, to '5' for stories they 'disagree completely' could happen to them.) In the seventeen year old sample, these realism constructs are joined by 'full of violence', with a correlation of -.560.

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[21] We are looking here at loadings of particular stories on the various components of the group matrix, and considering within-subject contrasts.

'Realism' in these older samples seems to be a continuation of the six year olds' concern with whether or not stories are real or made up, but modified into a contrast between 'realistic' and 'based on fantasy', though very few of the subjects at any age verbalize it quite that way. The examples below again give some sense of the changing nature of the discrimination:

Realistic	Not Realistic
The Vikings	Mary Poppins (George E., 9;10)
Jennings Goes to School	Doctor Doolittle (Grant H., 9;0)
The Silver Sword	The Lion, the Witch, and the Wardrobe (Kenneth J., 10;0)
The Lion, the Witch, and the Wardrobe	The Silver Sword (Luella R., 9;6)
Katie in Paris	Where the Wild Things Are (Melanie A., 9;8)
The Loneliness of the Long Distance Runner	Macbeth (Frank G., 17;0)
The Lost Domain	The Confidential Agent (Norman G., 17;9)
Emma	Lord of the Rings (Faye W., 17;5)
The Go-Between	Funeral in Berlin (Tracie C., 18;7)

Kenneth and Luella both use this dimension to separate The Silver Sword from The Lion, the Witch, and the Wardrobe, but they totally disagree about which is the 'realistic' member of the pair--a healthy reminder at this point of the personal nature of construing, however similarly the constructs may seem to be organized. At nine the nature of the discrimination is relatively clear, but by seventeen the opposite pole of realism is being used for works as diverse as Macbeth and Lord of the

Rings. It may be that at both ages fantasy is defined much as we used it in discussing stories children tell, as the perceived distance between the world of the story and that of the reader's own life and world-view. The present data are no more than suggestive, however, of possibilities to explore in future investigations.

To the extent that the constructs which each student chose to add to his own grid are unrelated to one another, the twentieth construct in these analyses will account for approximately 5 percent of the total variation and will show only random relationships with any of the other constructs. These constructs-added determine the fourth component in the thirteen and seventeen year old samples, and the third component at age nine; later components are similarly determined by the variation specific to single constructs or by very low loadings reflecting residual variation. After the fifth, none of the components accounts for as much as 5 percent of the total variation at any age.

Individual Patterns

In the written grids, with their greater number of constructs and with stories chosen by the students producing a more heterogeneous set of elements, it is possible to interpret the dimensions in each grid individually much as we have done already for the group patterns. This was done for the first 3 components of each of the 100 written grids on the basis of construct loadings; the classification was completed before the group analyses were begun in order to avoid any bias in the patterns that might be recognized. Table 43 summarizes the results, with each component classified into one of the four most frequent patterns, or left unclassified.

Over 90 percent of the personal construct systems in each sample show a clear evaluative dimension; in most cases this is the largest among the components observed. A dimension representing the 'simplicity' of the stories being construed occurs in about two-thirds of the grids,

Table 43: Summary of Components One, Two, and Three in Individual Written Grids[1]

	Percent of Grids in Which the Component Clearly Appears			
	Comprehensive School		Selective Schools	
Component	Age 9 (n=30)	Age 13 (n=30)	Age 13 (n=20)	Age 17 (n=20)
Evaluation: At All	93.3%	100.0%	95.0%	90.0%
As first component	80.0	96.7	95.0	70.0
As second component	10.0	3.3	0.0	20.0
As third component	3.3	0.0	0.0	0.0
Simplicity: At All	66.7	73.3	55.0	65.0
As first component	13.3	0.0	0.0	15.0
As second component	33.3	43.3	30.0	40.0
As third component	20.0	30.0	25.0	10.0
Seriousness: At All	16.7	20.0	70.0	25.0
As first component	3.3	3.3	0.0	5.0
As second component	10.0	10.0	55.0	20.0
As third component	3.3	6.7	15.0	0.0
Realism: At All	26.7	36.7	20.0	60.0
As first component	3.3	0.0	5.0	10.0
As second component	23.3	16.7	0.0	20.0
As third component	0.0	20.0	15.0	30.0
Unclassified: At All	96.7	70.0	60.0	60.0
As first component	0.0	0.0	0.0	0.0
As second component	26.7	23.3	15.0	5.0
As third component	70.0	46.7	45.0	55.0

[1] For a summary of the loadings on these components, cf. supplementary table 22.

usually as the second component in the analysis. A 'realism' factor emerges less consistently; it appears in a low of 20 percent of the grids at thirteen in the selective school and in a high of 60 percent in the seventeen year old sample. These fluctuations reflect the emergence of another dimension which is not so evident in the group results: seriousness appears among the first three components in about 30 percent of the grids, including fully 70 percent of those from the thirteen year old selective school samples. This is dominated by the construct 'serious', with 'hard', 'slow', 'disturbing', 'unexpected ending', 'teaches a lesson', 'sad ending', 'makes me think', and 'like real life' all relatively frequently associated with it. In figure 5's maps, it represents a further separation of 'serious' from the other clusters, sometimes with simplicity in turn collapsing with evaluation and other times with all three remaining separately defined. In the younger comprehensive school samples, this seriousness component occurs almost exclusively in the grids from girls, but with the older selective school students it is equally likely from either sex. The importance of seriousness as an independent dimension is at its peak in the thirteen year old selective school samples from both the boys and the girls schools. If we recall the results from our analysis of levels in the discussion of stories (in chapters VII and VIII), these samples were also the first to show much analysis and generalization in their essays;. their comprehensive school peers continued to be concerned primarily with summarizing the action and details of the plot. This suggests that the emergence of 'seriousness' may reflect the new and still novel recognition by these students that works can have a message and serve a purpose beyond simple entertainment, that their form is controlled rather than arbitrary. Literature is emerging as something 'serious' and 'adult', and as such these characteristics receive unusual attention in the responses. By seventeen, when students are more familiar with such an approach, this dimension again collapses, leaving evaluation, simplicity, and realism to dominate in most of the grids.

These four dimensions account for better than two-thirds of all of the components analysed in detail. At nine, 97 percent of the grids contain 1 component (of the first 3) left unclassified, a proportion that falls to 60 percent in the seventeen year old sample. None of these unclassified components represents the first, major dimension of construing in any of the grids: the majority represent the third and smallest of those analysed. If these unclassified components are looked at in terms of their highest loading, some further consistencies do emerge. Of the 72 from all of the grids taken together, 13 are oriented toward 'full of violence', a construct which loads erratically on the other major components in both the individual and group patterns. Other constructs which have components oriented toward them 5 or more times include 'disturbing' (6 grids), 'works out as you would expect in the end'(7), 'teaches a lesson' (6), 'original' (9), 'could happen to me' (8), and 'slow-moving'(9). As a set, these unclassified components seem approximately evenly divided between slightly eccentric individual variations upon the named dimensions, highly specific residuals from earlier dimensions[22], and dimensions defined primarily by single constructs not otherwise integrated into the construct system. The largest of the last of these often occurred for constructs which, during testing, the student had had trouble understanding.

At this relatively global level, the pooled analyses for each age group again quite accurately reflect the patterns evident in the individual grids. There are no artificial dimensions emerging in the group data as a result of pooling the grids, and there are no major omissions. The one developmental change which is highlighted by the individual analyses is the temporary separation of 'serious' as the core of a separate component in the thirteen year old selective school samples, but even this is more a matter of orientation and emphasis than of major differences between the results; in the group patterns (figure 5), 'serious' is clearly separated somewhat from the other clusters.

By shifting the emphasis slightly, however, it is possible to argue the other side of the general issue: though the group data are meaningfully and systematically related to the individual systems of construing, equally clearly the individual patterns are not simply carbon-copies of the group process. None of the grids in this study presents exactly the same pattern of loadings as those that emerge from the analysis of the pooled data for the appropriate age group; neither are any two grids in this sample of 100 exactly identical. Some of this individual variation is probably random, a product of the restricted sample of stories (9) used to assess individual patterns of construing; some of it must equally be systematic, offering a rich field for later investigation of individual differences within the context of such other effects as instructional patterns, personal abilities, and experimental tasks.

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[22] E.g., in some of the grids a component reflecting the covariation of two central constructs such as 'easy' and 'simple' is followed by an orthogonal component accounting for contrasts between the two on some stories; this second, residual component will have high positive loadings for one of the pair, and high negative loadings for the other.

7. Summary

The use of repertory grids to investigate the organization of spectator-role construct systems has amplified considerably our knowledge of developmental changes in literary response. The most important findings can be reiterated briefly:

1) The amount of organization in individual grids remains remarkably constant across the ages and samples studied here, as measured by the amount of variation explained by each of the major components. At all ages, the first three principal components account on average for 90 percent of the variation in the orally administered grids, and 80 percent in the larger written grids. Within these averages, however, the amount of individual variation is large.

2) Between-subject consistency in the relationships among constructs rises substantially across the age-range from six to seventeen; the lack of consistency in the youngest samples may be partly artifactual, however, resulting from the restricted variation on many constructs rather than from demonstrated inconsistency in patterns of response.

3) Analyses of the major dimensions of construing both for each age-group as a whole and for the individual grids show dimensions which correspond to evaluation, simplicity, and realism in all of the samples from nine onwards. For the six year olds, the constructs are less clearly integrated in consistent patterns. Evaluation in particular is of less importance than in the responses of the older students, who show a gradual tightening of the system as a whole around the evaluative dimension.

4) 'Seriousness' emerges as an important dimension of response in the individual grids for the thirteen year old selective school samples, where it may represent a new awareness of the possibilities of adult literature.

5) 'Simplicity' shows a clear evolution from an initial concern with reading difficulty and the audience for whom a story is intended, to a later concern with the formal complexity of books all of which are accepted as 'adult'.

6) Changes in 'realism' are less clearly related to changing construct meanings; in all of the samples studied, realism seems to reflect the psychological distance between reader and work. The nature of the stories which are judged to be 'distant' varies markedly from reader to reader, however, as well as from age-group to age-group.

CHAPTER X

PATTERNS OF EXPECTATION AND PATTERNS OF PREFERENCE

1. Introduction

"Reading interests" have been the most thoroughly investigated aspect of response to literature, largely because of the concern of educators with meeting the 'needs and interests' of their students or, alternatively, with insuring that the necessary interest could be retrospectively generated. Other similar investigations have been undertaken in the belief that one could use the correspondence between adult (usually, educated adult) taste and children's taste as an index of the 'maturity' of response or of the success of the school program.[1] The present investigation has been carried through in the belief that such an equation is facile: literary response is a complex process with its own developmental stages, and these are not simply successively more appropriate approximations to the approved adult response. The developmental course of response is the product of the accumulated experience of each individual with spectator role discourse; James Britton (1968) has put it best, describing response as a "legacy of past satisfactions."

This chapter will explore some of this legacy, looking first at general patterns of response to the stories and story-types in the grids already described, and then presenting the results of a supplementary exploration of patterns of preference for other spectator-role genres and media. Finally, we will return to the question of liking and judging, and of the relationships between them.

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[1] Traditional investigations of reading interests have recently been summarized by Mott (1970); his discussion, though encyclopedic, is not very enlightening.

2. What Are Stories Like?

General Expectations

The grids used in this study were designed to provide constructs which discriminate between stories; to the extent that construing is biased toward one or another pole of each construct, however, the average ratings on each construct provide a portrait of what stories are in general like. In the terms of the earlier chapters, they also describe patterns of reasonable expectations deriving from previous exposure to stories. Since the samples of stories in the present study are not random selections from the repertoire at each age, some caution is needed in interpreting the results, but the story-categories were selected to be representative of that repertoire and did elicit a large number of different titles. For the older subjects, ratings of a story 'recently heard or read' provide a useful check on the accuracy of trends in the overall average; this is the most neutral of the story categories used, and presumably comes closest to a random sampling of stories that each age-group is typically reading.

Children at all ages in these samples rate stories as in general 'good', whichever of the major evaluative constructs is considered. At six, the average rating for 'very good' is 1.4 on a 5 point scale beginning at 1; at seventeen it is 1.7 (tables 44 and 45). If a recently

Table 44: Mean Ratings on Constructs Relevant to Stories, Oral Grids[1]

Construct	Age 6	Age 9
1. Very good-not	1.4	1.5
2. Teaches a lesson-doesn't	2.5	2.5
3. Really happened-made up	3.8	4.8
4. Easy to understand-hard	2.7	2.0
5. Ends happily-sadly	2.4	1.2
6. Interesting-boring	1.8	1.5
7. Long-short	2.5	2.3
8. For older-for younger	3.0	3.6
9. Serious-funny	2.6	2.7
10. One you like-don't	1.2	1.5

[1] Each mean is based on ratings of 8 stories by 22 children. The differences between constructs and between ages are significant at at least the .05 level; cf. supplementary table 12.

Table 45: Mean Ratings on Constructs Relevant to Stories, Written Grids[1]

Construct	Comprehensive School		Selective Schools	
	Age 9 (n=30)	Age 13 (n=30)	Age 13 (n=20)	Age 17 (n=20)
1. Very good	2.0	2.1	1.9	1.7
2. Disturbing	4.2	3.2	2.9	2.6
3. Dull	4.0	3.8	3.9	3.9
4. Works out as expected...	2.7	3.0	2.7	3.0
5. Teaches a lesson	3.7	3.4	3.3	2.6
6. Original	2.6	2.5	2.2	2.0
7. Easy to understand	2.2	2.3	2.4	2.6
8. Could happen to me...	4.2	3.7	3.8	3.5
9. Ends happily	1.8	2.4	2.3	3.0
10. Slow-moving	3.5	3.2	3.5	3.3
11. Full of violence	3.7	3.5	3.5	3.2
12. Well-written	1.7	1.7	1.8	1.7
13. Completely absorbing	2.9	2.4	2.4	2.2
14. Makes me think	2.9	2.5	2.6	2.3
15. Simple	2.4	3.1	3.2	3.3
16. Serious	3.5	2.5	2.4	2.1
17. One I like	1.9	2.1	2.1	2.0
18. Like real life	3.6	3.0	3.0	2.7
19. Interesting subject	2.3	2.3	2.0	1.9
20. One additional	2.7	2.7	3.0	2.8

[1] Each mean is based on ratings of 9 stories by each subject. The differences between constructs and between ages at the comprehensive school, and between constructs at the selective school, are significant at at least the .05 level; cf. supplementary tables 13 and 14.

read story is considered instead of the full set, then stories are rated even more highly.[2] In offering stories to his students, then, the teacher would seem to be in a highly favourable position. On the basis of their previous experience, students will expect to enjoy the stories they read--until and unless the teacher convinces them otherwise.

Looking more specifically at age changes in average ratings, the six year olds are more ambivalent than those at nine about whether stories are about something which 'really happened', or are just 'made up': 31 percent of the children at six, but none at nine, clearly favour the 'really happened' view. The six year olds are also more likely to assert that a story has ended sadly, largely because of their tendency to seize upon one or another detail in answering such questions, rather than considering the shape of the story as a whole. (Three Little Pigs, for one, is frequently said to end sadly, because the wolf falls into the pot of boiling water.) By nine, both for the stories they have chosen themselves and for those their teachers have nominated, happy endings dominate almost completely. This very clear consensus among the nine year olds that their stories end happily may be setting the stage for the happiness-binding that Squire (1964) has reported as one problem which early adolescents have in responding to literature.[3] Juvenile literature such as that which the nine year olds in this study are familiar with, does for the most part end happily; this in turn must build up very firm (and reasonable) patterns of expectations which will not be challenged until they begin to encounter the rather different patterns of adult literature during early adolescence. Wilson's (1966) finding that first year college students do not evidence similar problems of happiness-binding suggests that they do, as one would suppose, come to build a new pattern of expectations.

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[2] Analysis of variance indicates that the means on the constructs differ significantly one from another, and also that there are significant changes with age. These analyses are reported in supplementary tables 12, 13, and 14; means for each of the story-types, including stories recently read, are reported in full in supplementary tables 20 and 21.

The cluster of constructs which were related to a dimension of 'seriousness' in the analysis of the individual grids (chapter IX) also shows a gradual shift across the ages sampled here. The older students are more likely than their younger peers to construe stories as 'serious', 'disturbing', 'teaches a lesson', 'makes me think', 'not simple', 'not easy to understand', 'like real life', and 'could happen to me or my friends'. The shifts are for the most part not great, but they are consistent for both the general mean and for the average ratings of a story recently heard. As a set they parallel the sort of increasing ability of the older students to generalize about stories that we discussed in chapters VII and VIII.

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[3] Thus: "Regardless of the logic of events and circumstances, they continually assume, infer, and hope for the best. They are 'happiness bound' both in their demand for fairy tale solutions and in their frequent unwillingness to face the realities of unpleasant interpretations. Consequently, their sentimental overemphasis on the good frequently leads them to distort and misinterpret both characters and their actions" (pp. 41-42).

Differences Among Story-Types

For each of the story-types in the written grids, the average ratings provide a composite portrait of the way that that type of story is construed. These average ratings are reported in full in supplementary tables 20 and 21, but there is very little in them of particular interest. Favourite stories tend to be evaluated more positively, hard ones to be rated as difficult, deep ones as more serious, moving ones as more absorbing. Even the age changes merely reconfirm findings previously reported: 'disturbing' and 'does not work out as expected', for example, change from attributes of stories not liked at nine, to characteristics of favourite stories by seventeen. Ratings of Cinderella, the one story included in all of the grids, show a gradual convergence toward an agreed pattern; this remains essentially stable from thirteen onwards.[4] The variation about the average ratings for Cinderella shows a gradual decrease from six to thirteen, as the children agree more with one another about how the story should be construed. This variation rises again in the seventeen year old sample.[5] From questions which arose during the administration of the grids, as well as from the resulting patterns of ratings, this seems to be because some students rated the story as they respond to it, while others rated it the way they think children of the age for whom the story is intended would respond.

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[4] Multivariate analyses of ratings on the 20 constructs show no significant differences for Cinderella between the comprehensive and selective schools (F = 1.46, df=20;27) or between the thirteen and seventeen year olds at the selective school (F = 1.48, df=20;17).

[5] In the interviews, the mean square variation is 1.43 and .92, df=210, at six and nine respectively. On the written measures in the comprehensive school, it is 1.97 and 1.34, df=580, at nine and thirteen; and at the selective school, 1.00 and 1.62, df=380, at thirteen and seventeen.

3. Other Forms of Spectator Role Discourse

So far our explorations have concentrated on responses to stories as a form of the spectator role with which children at all ages are familiar. There are many other genres and media which are part of the spectator role, however, and to explore some of them a second set of repertory grids was administered to the supplementary study samples described in chapter III. These included 22 children at six and at nine who received an orally administered grid, and 20 at eleven, at thirteen, and at sixteen who received a written version: 104 children in all, evenly divided between boys and girls, with no overlap with the samples for the main-study grids. The constructs supplied to these students were identical to those used in the main investigations, but the elements were different. Instead of various story-types, subjects were asked to list their favourite poem, television serial, play, story, pop song, comic book, and film;[6] each of these was then rated on each of 20 constructs, just as in the previous study. A twenty-first construct (eleventh on the oral grid) was included in which, at a different point in the testing procedure, each student was asked to rank the various genres in order of preference,[7] in this case without specific titles in mind. (In the analyses to follow, this additional construct is labelled as 'genre preference'.)

Some Replications

The analysis of these grids began with the same stages that were used for the main study, though the restriction to 'favourites' makes the grids less useful as a general measure of the nature of construing. Even with these restrictions, however, developmental changes in response followed the patterns observed in the main study. Again there was a wide variety of specific titles suggested as 'favourites' at each age; the greatest restriction occurred for 'rhymes' among the six year olds; who named only 7 different titles; the greatest variety occurred for 'stories' among the nine year olds on the oral grids, where all nominated a different favourite.

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[6] This is the list used with the written grids; in the oral version, they were asked for their favourite TV program, poem, story, rhyme, song, and film.

[7] The preference ordering was then converted to a 5-point scale to be compatible with the other constructs in the grids; cf. appendix III.

Bias decreases over the entire age range, though there is in general less bias on these grids than on the story grids discussed earlier. Polarity also decreases, with 88.4 percent 'extreme' scores at age six, but only 63.0 percent by age sixteen. Within-grid variation is slightly greater in the written grids than on the oral ones, but there is no clear pattern of change with age. Intraclass correlations among the angular distances between constructs in the individual grids show a gradual rise from six to sixteen, though with the restriction to 'favourites' they remain much lower overall than those that were reported for the main studies. Finally, the distribution of variation among the components in the individual grids remains remarkably constant across the ages; the first, major component in the oral grids accounts for some 55 percent of the variation; that in the written grids, for some 44 percent. All of these patterns parallel those in the main study; they are summarized in more detail in supplementary tables 26 through 30.

Construing in the Spectator Role

All of the genres and media examined in the supplementary study are examples of spectator-role discourse in the broad sense outlined in chapter II. The amount of variation accounted for by each genre in the individual grids provides an indication of the extent to which the genre deviates from the others. At six, all account for roughly the same proportion of the variation, except that 'favourite poems' are relatively unimportant (table 46). This reflects the fact that poems are not very firmly defined for these children: at six, 54.5 percent give the same

Table 46: Proportion of Within-Grid Variation Accounted for by Each Genre

	Average Percent of Total Variation[1]				
	Oral Grids		Written Grids		
Genre	Age 6 (n=22)	Age 9 (n=22)	Age 11 (n=20)	Age 13 (n=20)	Age 16 (n=20)
1. Films	18.7%	16.1%	12.1%	14.2%	12.4%
2. Poems	12.8	18.2	19.2	17.5	16.8
3. Comic books	-	-	11.0	11.8	17.8
4. Television serials	18.2	11.3	12.5	14.0	13.9
5. Stories	17.5	15.8	13.0	13.0	12.3
6. Plays	-	-	16.9	17.6	13.6
7. Songs	17.2	15.0	15.3	11.9	13.2
8. Rhymes	15.6	23.6	-	-	-
	100.0%	100.0%	100.0%	100.0%	100.0%

Multivariate Analyses of Variance[2]

Source	df	F-Statistic	Univariate Effects (.05)
Oral Grids: Age	5;36	4.14***	2,4,8
Sex	5;36	0.65	-
Interaction[3]	5;36	2.12	2
Written Grids: Age (linear)	6;49	3.56***	3
Age (quadratic)	6;49	1.58	1
Sex[4]	6;49	1.71	3
Interaction (linear)	6;49	0.49	-
Interaction (quadratic)	6;49	1.56	-

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[1] Percentages are not comparable between the oral and written grids, since they include different numbers of genres.

[2] Because of the linear dependency, the last genre in each set was dropped from the multivariate analyses; results would be identical whichever were excluded.

[3] Poems account for a higher proportion of the girls' variation at six, but a higher proportion of the boys' variation at nine.

[4] Comic books consistently account for a higher proportion of the girls' variation.

***$p < .005$

title for their favourite poem and favourite rhyme, and 4.5 percent give the same title for their favourite poem and favourite song, though by nine there is only a 9.1 percent overlap altogether. As a consequence, the ratings for poems retreat towards the average rating for the younger children, and the proportion of variation falls. Between six and nine poems become more firmly defined and the variation attributable to them rises accordingly; at the same time rhymes become considerably more deviant (accounting for 23.6 percent of the total variation). This is a genre that they have outgrown: it is relegated to younger children and is construed as unlike the genres which are more appropriate to the age-group. From eleven to sixteen the genres used in the written grids remain in better balance, each accounting for between 12 and 19 percent of the variation in the individual grids. The major shift here occurs for comic books, which become less typical of the repertoire between thirteen and sixteen, and like rhymes earlier, begin to generate increasingly deviant ratings.

If the spectator role as a theoretical construct has any empirical validity, these various genres and media should share a common spectator-role construct system. Though the data gathered in the present study do not allow this to be assessed individually for each subject, an approach to the issue can be made by looking at the data for each sample as a whole. For each of the three ages receiving the written grids, angles between constructs were calculated on the basis of all ratings of each genre, taking the genres separately. (I.e., one matrix of angles was based on ratings of 20 favourite films by the eleven year olds, a second matrix was based on ratings of 20 favourite poems by the same children, and so on.) These matrices can be thought of as estimating each age-group's consensus about the organization of constructs dealing with each particular genre, and intraclass correlation coefficients can be computed just as they were earlier computed between the matrices of individual subjects. The results from this analysis are summarized in table 47 below. They suggest a rise in between-genre consistency at age sixteen in comparison with the two younger groups. Analysis of the variation among the angles in different grids and for different construct-pairs shows a highly significant effect for differences among the angles between specific constructs (i.e., for the general pattern of organization of the constructs into a construct-system), with very little change in this organization at different ages, and less still for different genres. Both of the latter effects are small; their statistical significance depends on

Table 47: Intraclass Correlations Among Various Spectator-Role Construct Systems

Within Ages	Number of Grids[1]	Intraclass Correlation
Eleven	7	.303
Thirteen	7	.300
Sixteen	7	.481
Between Ages		
Films	3	.136
Stories	3	.331
Poems	3	.410
Comic books	3	.301
Plays	3	.420
Television serials	3	.495
Pop songs	3	.353
All	21	.335

Analysis of Variation in the Angular Distances

Source	Sums of squares	df	Mean square	F-Ratio[2]
Between Classes				
Age	3.221	2	1.611	<1.000
Genre	76.100	6	12.683	1.564
Error_b	97.314	12	8.110	
Within Classes				
Angles	3319.136	209	15.881	13.774***
Angles x Age	905.541	418	2.166	1.879
Angles x Genre	1929.386	1254	1.539	1.335
Error_w	2891.175	2508	1.153	
Total	9218.652	4409		

[1] Each grid consists of ratings of 1 genre by 20 subjects on each of 21 constructs.

[2] These are tested using the reduced degrees of freedom of the conservative test; using the full degrees of the ordinary F-test, Angle x Age and Angle x Genre effects are also significant at at least the .05 level.

***$p < .005$

whether one uses the ordinary F-test with its very high degrees of freedom, or a conservative test with reduced degrees of freedom to allow for the unequal variances and covariances which are likely here (on the conservative test, cf. appendix III). In any event, the amount of variation which is due to similarities in the organization of the construct system is some 10.3 times greater than that due to differences in the organization for the various genres.[8]

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[8] I.e., the ratio of MS variation due to differences among the angles to MS variation due to angles x genres interaction = 10.3.

This sort of analysis is pushing the data from the present study relatively hard, but it supports similar findings from a study of dimensions in the construal of works of art. Davisson (1971) studied a small sample of adults using their own (elicited) constructs to sort sets of Gaugin paintings into those which were similar and different on each construct. His subjects received two sessions with the initial set of paintings, a third session with another set of paintings by the same artist, and a fourth session with a set of 12th to 16th century Russian icons. On the basis of the initial sorts made by each subject, a pair of judges independently predicted how the subjects would construe the second set of Gaugin paintings, and later the set of Russian icons. Davisson found that the judges were in fact able to predict subsequent sorting behavior, and that these predictions were only marginally less accurate for the icons than for the second set of paintings. From his analyses, Davisson was able to conclude that there were stable dimensions of construing underlying his subjects' responses, and that the same dimensions had utility in construing the widely divergent stimuli presented by impressionist paintings and Russian icons.

We would not want to conclude that the construct systems applied to the various genres are identical; there are at the least certain constructs which apply to some but not to others. (We can talk of a 'well-acted' play or film, for example, but not of a 'well-acted' novel.) But the evidence certainly suggests that these differences are refinements or articulations of a general spectator-role system of construing into which they are all eventually integrated, rather than separate systems independently developed and applied.

Patterns of Preference

If reading and other spectator-role activities provide the widely varying range of satisfactions, and are undertaken for the range of purposes, that has been suggested at various points in this discussion, then we might expect to find that the various media, with their differing resources of form and structure, might offer rather different satisfactions. It is this question which the supplementary study was designed to investigate: are the typical 'favourites' in each genre construed differently in certain consistent ways?

Using simple analysis of variance on the grids in the supplementary study, there are clear and highly significant differences between the average ratings on each genre, on each construct, and for genre by construct interactions (table 48). Changes with age are less clearly

Table 48: Analysis of Variation in Ratings on Supplementary Study Grids

Source	Oral Grids			Written Grids		
	df	Mean Square	F-Ratio[1]	df	Mean Square	F-Ratio[2]
Between Grids (G)						
Age (A)	1	2.095	<1.00	2	16.752	1.72
Sex (S)	1	4.320	<1.00	1	27.669	2.84
AS	1	3.174	<1.00	2	21.716	2.23
G(AS)	40	6.889		54	9.630	
Within Grids						
Elements (E)	5	57.993	23.60***	6	40.994	12.12***
AE	5	13.012	5.30*	12	5.571	1.65
SE	5	4.153	1.69	6	3.865	1.14
ASE	5	6.903	2.81	12	3.764	1.11
GE(AS)	200	2.458		324	3.383	
Constructs (C)	10	245.146	64.36***	20	264.742	80.42***
AC	10	13.519	3.55	40	8.891	2.70
SC	10	3.043	<1.00	20	6.612	2.01
ASC	10	2.241	<1.00	40	5.302	1.61
GC(AS)	400	3.809		1080	3.292	
EC	50	6.462	4.01	120	10.003	5.84*
AEC	50	2.344	1.45	240	3.086	1.80
SEC	50	2.123	1.32	120	2.050	1.20
ASEC	50	1.729	1.07	240	2.266	1.32
GEC(AS)	2000	1.612		6480	1.714	

[1] Tested using the reduced degrees of freedom of the conservative test; using the full degrees of the ordinary F-test, ASE, AC, EC, and AEC effects are also significant at at least the .05 level.

[2] Tested using the reduced degrees of freedom of the conservative test; using the full degrees of the ordinary F-test, AC, SC, ASC, AEC, SEC, and ASEC effects are also significant at at least the .05 level.

*$p < .05$
**$p < .01$
***$p < .005$

demonstrated; the results using the normal F-test show significant effects, but the differences are relatively small and not significant using the reduced degrees of freedom of the conservative test. This suggests that 'favourites' have a characteristic configuration of ratings which is maintained across genres and age groups and that individual genres differ significantly from one another within this general pattern, leaving open the possibility of some systematic age-change within this general pattern of stability.[9] To explore this further, principal components analysis was used to concentrate the observed variation into a few more easily summarized dimensions. The results from these are summarized in figure 6 (for the oral grids) and figure 7 (for the written ones). Both figures map the two major dimensions of variation in the average ratings; the first dimension corresponds to evaluation as it emerged in the analyses reported previously; the second corresponds to simplicity. (Because of the particular restrictions on these grids, the configuration of constructs is not identical to that previously discussed, though it is highly similar.) The location of each genre at each age is plotted in the body of the map, with the orientation of individual constructs indicated around the border. As with the three dimensional maps in the previous chapter, each of the constructs should be thought of as an axis passing through the center of the diagram to the other side. (In each case the supplied pole of the construct is labelled and its opposite pole indicated by a slight projecting line exactly opposite.)

Patterns at Six and Nine

Looking first at the results from the younger children (figure 6), it is clear that a general preference ordering is relatively firmly established by six, though there are minor adjustments between six and nine. All of the genres receive at least slightly positive ratings, but

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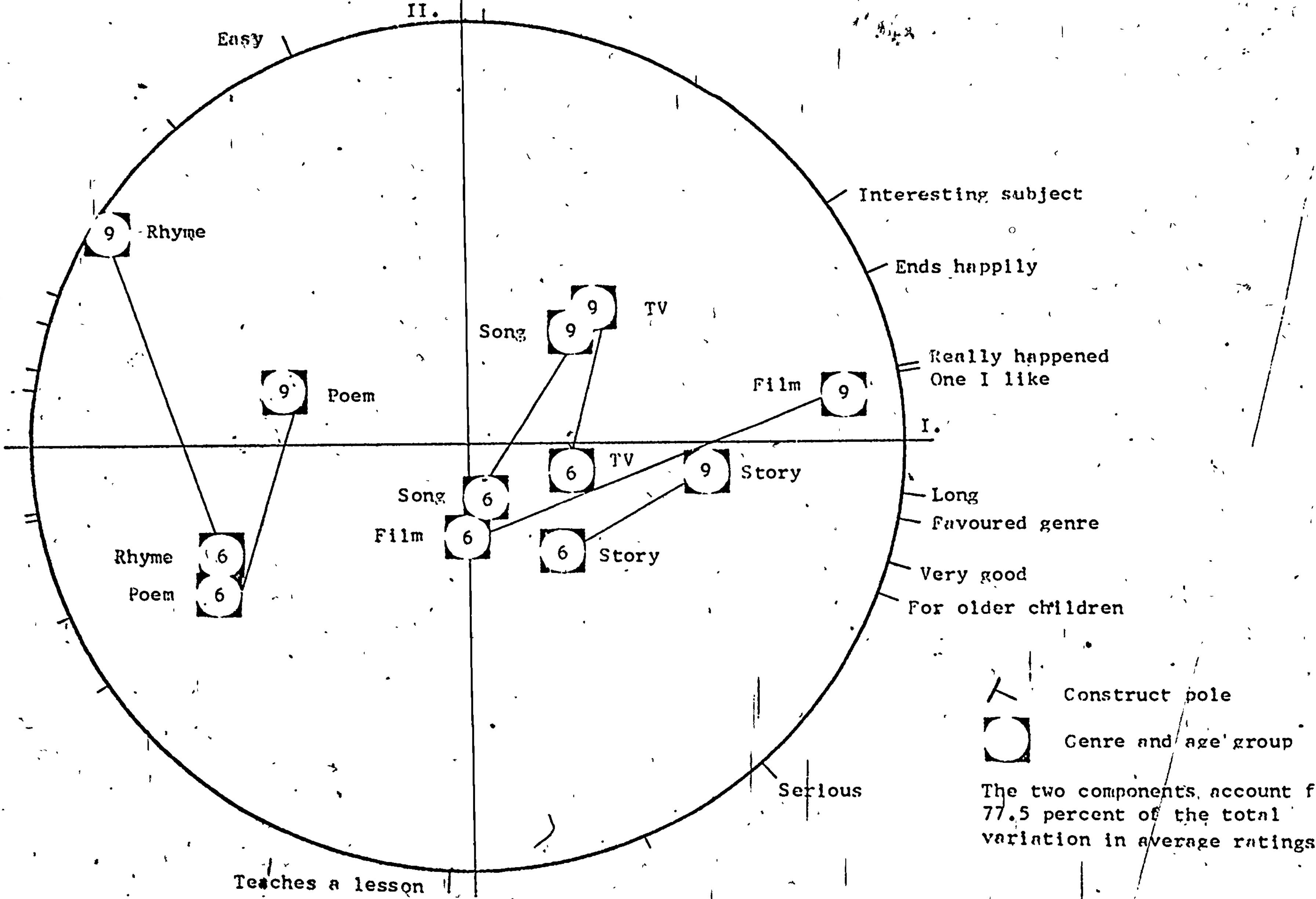
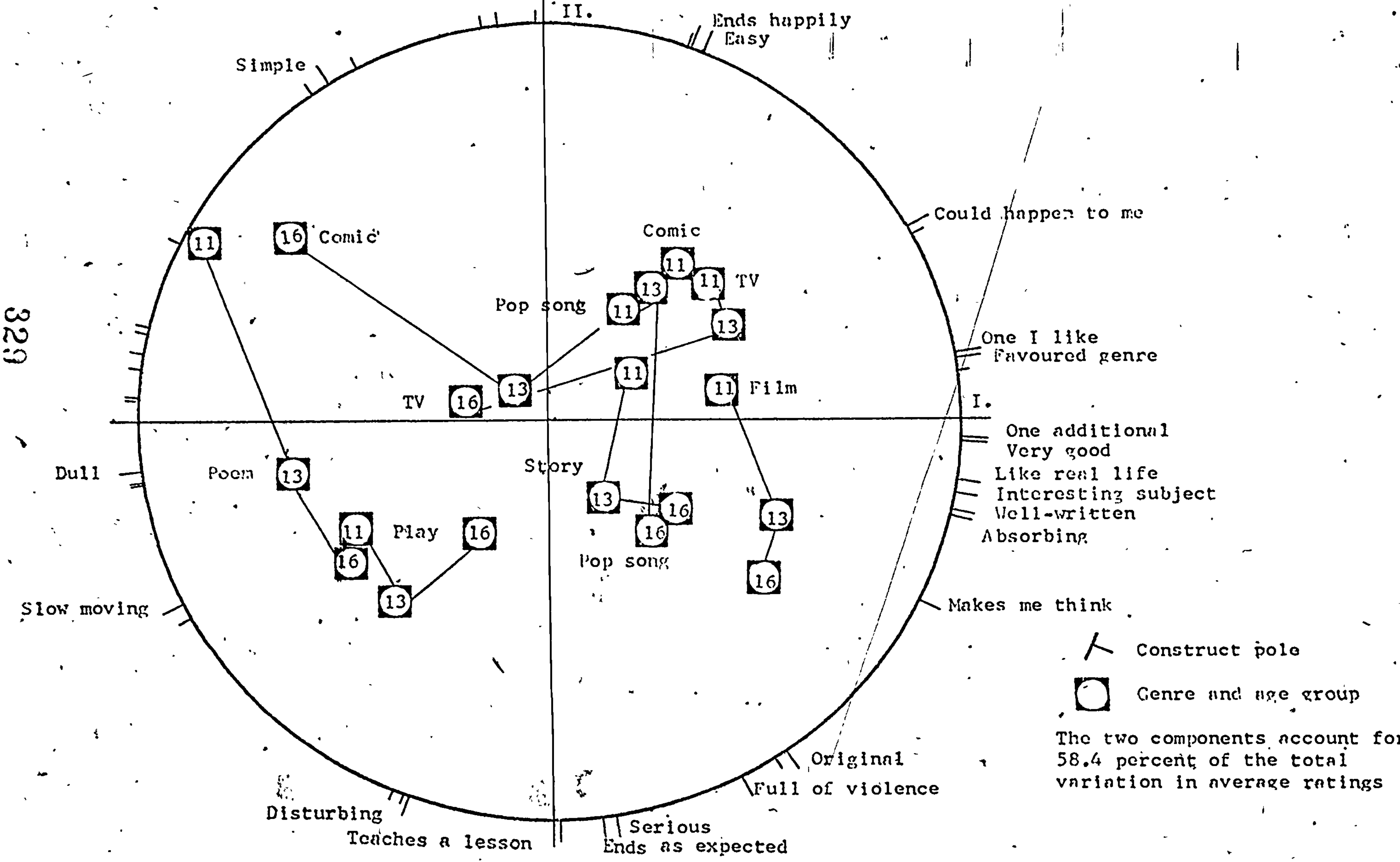
[9] The stability of the overall configuration is strikingly evident in the correlations between the average ratings on each construct for each genre in each age-group: all of the correlations between genres are highly positive, even in comparing the oldest and youngest ages in each sample.

Figure 6: Six Genres As They Are Construed at Six and Nine
Composite Map of the First Two Components of Variation



The two components account for 77.5 percent of the total variation in average ratings

Figure 7: Seven Genres As They Are Construed at Eleven, Thirteen, and Sixteen
Composite Map of the First Two Components of Variation



films, television, stories, and songs are relatively favoured, with poems and rhymes being relatively unpopular. The only real shift in preference ordering that occurs between six and nine involves films, which move from third to first in the set investigated. This is at least in part a function of increased exposure: many of the younger children had seen only one film (in a few cases, none at all[10]) and they were correspondingly less sure in their ratings.

Given this general configuration of preferences, the judged simplicity of the whole set shifts considerably between six and nine. The older children rate their favourites as, on the whole, simpler than do the six year olds. (In figure 6, this general shift is reflected in the similar orientation of the arrows indicating age-changes for each genre.) The largest shift involves favourite rhymes, which by nine deviate significantly from favourite stories on almost all of the constructs investigated (table 49, below). To sum up the many changes for this genre briefly, the older children begin to construe rhymes as 'babyish', often with an accompanying reluctance to admit having any favourite rhymes at all.

Eleven to Sixteen

The developmental patterns among the older samples show the same generally well-defined preference orderings holding across the age groups, with large shifts occurring for a few of the genres. Films, which had by nine become the favourites in the oral grids, continue to be the most positively evaluated genre at all of the older ages (figure 7). Television holds second place until age thirteen, but then drops sharply from favour. Favourite comics, pop songs, and stories are all relatively highly

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[10] In such cases, subjects were asked to respond with what they thought the genre was in general like on each construct; the same procedure was used if they refused to name a 'favourite' or even one they 'liked very much'.

Table 49: Significant Differences Between Ratings of Favourite Stories and Ratings of Favourites in Other Genres

Genre	Differences Compared With Stories[1]
Films	
Age 6	nsd
Age 9	higher preference for genre
Age 11	not as easy, less likely to teach a lesson
Age 13	not as dull, more violent, more absorbing, preferred genre
Age 16	nsd
Poems	
Age 6	less interesting, shorter
Age 9	sadder ending, less interesting, shorter, funnier, less-favoured genre
Age 11	not as good, less likely to end as expected, less likely to happen to me, less absorbing, less likely to make me think, less serious, less liked, less interesting, less-favoured genre
Age 13	sadder ending, less well-written, less serious, less interesting, less liked
Age 16	less absorbing, less liked, less interesting, less-favoured genre
Television	
Age 6	nsd
Age 9	easier, shorter, funnier
Age 11	faster-moving, less likely to teach a lesson
Age 13	less serious
Age 16	more likely to end as expected, easier, less well-written, less likely to make me think, less interesting
Rhymes	
Age 6	less interesting, shorter, less liked, less-favoured genre
Age 9	not as good, less likely to teach a lesson, easier, sadder ending, less interesting, shorter, for younger children, funnier, less liked, less-favoured genre
Songs	
Age 6	nsd
Age 9	less likely to teach a lesson, shorter
Pop songs	
Age 11	less likely to end as expected, less likely to teach a lesson, less violent
Age 13	less likely to teach a lesson, less likely to happen to me, less serious, favoured genre
Age 16	more likely to end as expected, easier, less well-written, less likely to make me think, less interesting
Plays	
Age 11	not as good, less interesting, more disturbing, duller, less likely to teach a lesson, slower, less liked
Age 13	less likely to happen to me, sadder ending, slower, less-well-written, less liked
Age 16	sadder ending, less likely to make me think, less interesting, less-favoured genre
Comic books	
Age 11	less likely to end as expected, less likely to teach a lesson, easier, less interesting
Age 13	less likely to happen to me, less likely to make me think, simpler, slower
Age 16	not as good, less disturbing, duller, less original, easier, less well-written, less absorbing, simpler, less liked, less interesting, less-favoured genre

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[1] Significant at the .05 level, two-tailed, using t-tests for correlated means; df=21 for the oral grids, 19 for the written ones.

rated at eleven, with comics then falling behind while evaluations of the other two remain relatively constant. At the other end of the scale, favourite poems are consistently rated lowly compared with the other favourites studied, though by sixteen comic books have supplanted them as the lowest ranked.

Whereas between six and nine the ratings of favourites show a general shift towards simple, between eleven and sixteen they tend to shift in the other direction. Comic books are the one exception to this general pattern, with the sixteen year olds viewing them as much simpler than do the younger students. Plays also become slightly less perplexing to the older students, though they remain the least simple of the various favourites even at sixteen.

If we take ratings of favourite stories as a convenient reference point, some of the specific differences between genres are interesting; these are summarized in table 49, with the average ratings reported in full in supplementary tables 31 and 32. Films become increasingly similar to stories in their average ratings, with no significant differences at all in ratings on the 21 constructs at age sixteen. Television serials similarly begin by being construed very similarly to favourite stories, but by sixteen are falling from favour as they begin to be seen as easier and more predictable. Comic books are from the beginning rated as easier than stories, but they are also rated as less likely to work out as expected by the eleven year olds. Apparently, the plots are still unfamiliar to these younger children, even though they recognize that the text itself poses few difficulties. By thirteen, however, this pattern has begun to erode, leading at sixteen to a pattern very similar to that of the nine year olds with rhymes: thorough rejection, with ratings consistently indicating that comics are easier and less liked than the other genres.

Though evaluation emerges as an important dimension of variation even within this sample of 'favourites', the data still provide support for arguments that the spectator role may offer many different sorts of satisfaction. In all 5 of the age groups sampled, favourites in every genre are positively evaluated, and most are highly so. The lowest scores for 'liking' are consistently for poems, with average ratings of between 2.3 and 2.6 on a 5 point scale--but even these represent slightly favourable judgments. If other evaluative constructs are considered, poems fare even better: on well-written, for example, their average is about 1.9. The major sort of different interests which the results seem to indicate is the quite traditional separation of light or entertaining works on the one hand from serious or difficult ones on the other. At all ages, some such separation is evident, though which genres are lightest and which most difficult varies from age-group to age-group. For the younger children, poems, rhymes, songs, and television programs (largely cartoons) all provide light versions of the spectator role; later rhymes, and still later comic books, become too simple and predictable and are rejected, but television programs continue to fulfill this role at all ages (though the particular programs shift from cartoons to the standard 'adult' fare). Favourite pop songs, on the other hand, show a shift toward greater complexity, becoming much closer to films and stories in the seriousness which the sixteen year olds attribute to them.

Other Influences on Preference

These analyses have concerned themselves simply with the results from the supplementary study grids, taking each age group as a whole. Data on the preference orderings for the seven genres are available, however, for all of the eleven to seventeen year old children, including those who answered open-ended questionnaires rather than the repertory grids.[11]

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[11] The request for the preference ordering for the various genres was included as part of the background information sheet given to all secondary school students at the end of the class testing session.

Though these data do not provide as full a portrait of response (since the genres were not rated on the other constructs), they provide a useful reminder that age is not the only influence on preference, and in this case probably not even the most important one.

What the data indicate is that preference is determined by the interaction of age, sex, and school (probably social and economic) factors.[12] Boys' and girls' preferences for the various genres and media studied not only differ from one another, but they show different patterns and directions of change. These are illustrated in figure 8, which presents the data separately for boys and girls in each of the samples. Overall, the patterns of preference are very clearly defined, as the previous discussion has suggested. Given this general patterning, however, the girls tend to rate the traditional school genres (stories, plays, and poems) more highly than do boys, and to rate the popular media (pop songs, television, comic books, and films) less highly; this becomes especially pronounced in the older samples. A similar trend is evident in the contrast between the comprehensive and selective school samples, with the selective school children (both boys and girls) tending to rate the traditional genres more highly, and correspondingly to downgrade the popular media. (It is important to remember here, however, that this is a rank-ordering task that forces the student to claim a preference for one genre over another; many complained that they liked or did not like the various media equally.)

Without more specific information about how the various genres are construed by these groups of students, it is impossible to explore the reasons for these differences more fully. It is worth noting, however,

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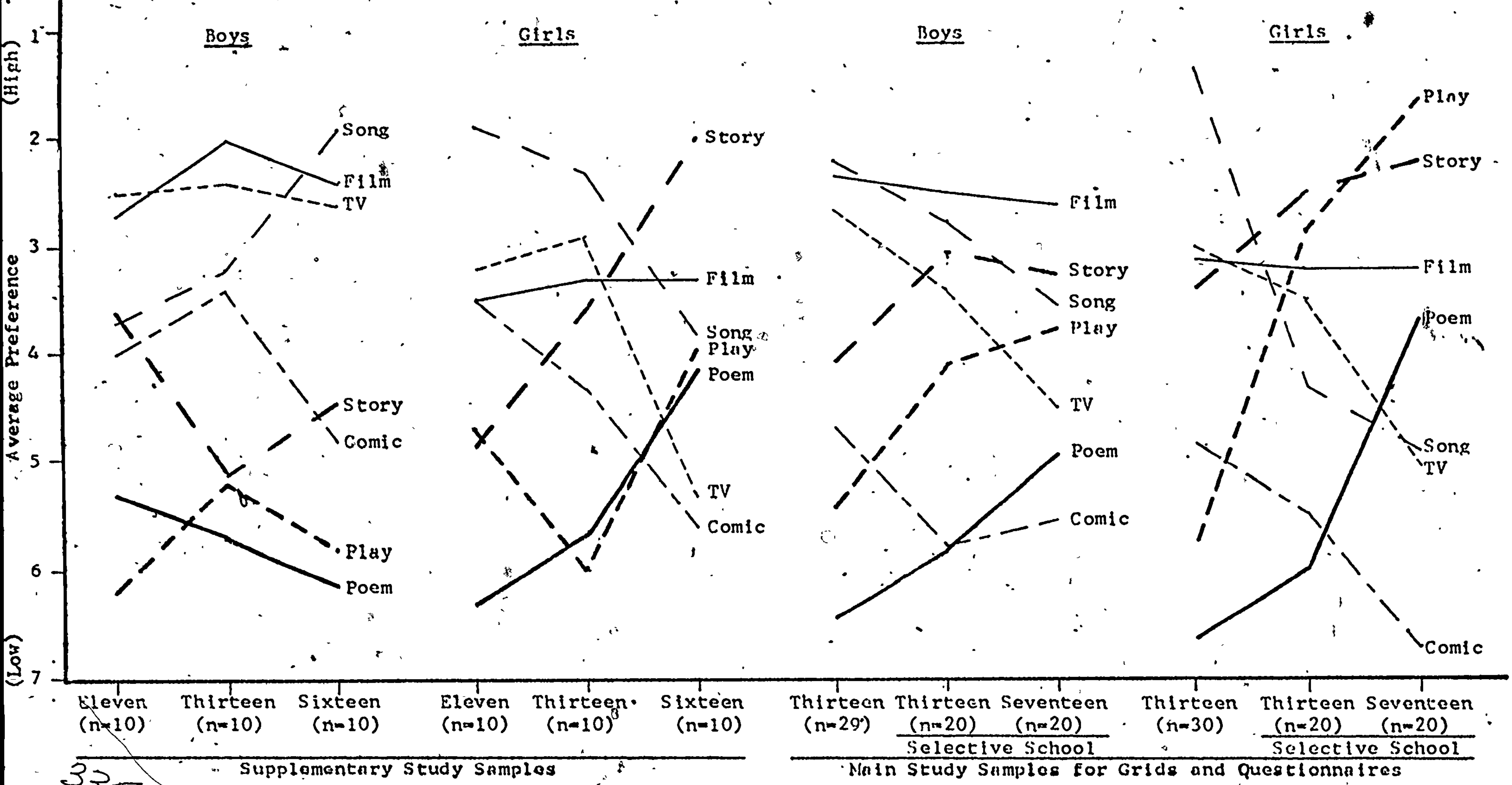
[12] Multivariate analyses of variance on preferences for the genres are summarized in supplementary table 35; differences between ages, between sexes, between measures (open-ended questionnaires, main study grids, and supplementary study grids), and between schools (comprehensive and selective) were tested. Because there were no significant sex or interaction effects in preference orderings for the six and nine year olds receiving the oral grids, they are not dealt with again here.

Figure 8: Boys' and Girls' Preferences for Selected Genres and Media



that they conform quite well to what might be thought of as differences in cultural expectations: the arts are in general construed as slightly feminine in our society, and they also tend to be more highly valued by the professional classes (typical of the selective school) than by non-professional workers (typical of the comprehensive school).[13] For whatever reasons, the patterns of preference in the various samples conform to these rather generalized expectations.

4. Liking and Judging

Empirical Relationships

Chapter VIII provided a brief introduction to the problem of liking and judging, posing the difference between them in terms of Langer's (1967) distinction between objective and subjective modes of feeling. This is a theoretical distinction, however, and one whose empirical validity remains in need of further exploration. Two of the constructs used in the present investigation can be taken as reference points: 'one I like' provides a direct index of liking, while 'well-written' provides an index of judging. If liking and judging are two separate dimensions of construing, then these two constructs should show a consistent, systematic divergence.

The most direct measure of the relationship between two constructs is their correlation, with its corresponding angular distance. Table 50 summarizes these from the individual grids in both the main and supplementary studies (only the results from the written versions of the grids can be considered here, since 'well-written' was not included in the oral grids). The average correlations make it quite clear that the two measures, one of liking and the other of judging, are highly related in all of these samples; correlations range from a high of .827 at eleven to a low of .668 at sixteen. At all ages, the relationship is significantly different

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[13] For an account of differing stereotypes of the arts and the sciences, cf. Hudson, 1968.

Table 50: Relationships Between 'One I Like' and 'Well-Written'

Sample		Average Angular Distance[1]	Standard Error	n	Equivalent Correlation
Main Study					
Comprehensive School	Age 9	42.6°	6.7	25	.736
	Age 13	36.1	3.9	27	.808
	Age 17	47.3	14.2	6	.678
Selective School	Age 13	36.2	4.2	20	.807
	Age 17	41.0	5.7	19	.726
Supplementary Study					
	Age 11	34.2	11.2	9	.827
	Age 13	36.6	8.0	11	.803
	Age 16	48.1	7.7	16	.668

[1] Only subjects with variance greater than zero on both constructs are included in these cases. In all cases, the angular distances are significantly different from 90°, and also significantly different from 0° at at least the .05 level, using two-tailed t-tests.

from zero, suggesting that liking and judging are closely related to one another. At the same time, however, all of the correlations are significantly different from the correlation of 1.0 that would be expected if there were no differences at all between liking and judging. They suggest, in other words, that there is in fact an empirical separation corresponding to the theoretical distinction made earlier.

Both samples also show an interesting tendency for the correlation between 'one I like' and 'well-written' to decrease slightly for the older students. In the main study the correlation drops between thirteen and seventeen in both the comprehensive and selective schools, and in the supplementary study it drops from eleven to thirteen and then again between thirteen and sixteen. These trends correspond closely to what we might expect to occur as a student finds his unschooled taste coming into conflict with the established 'school canon' or cultural heritage, but though consistent in all three samples the drop is not significantly large in any one of them and must remain as only a tantalizing hint for later studies to explore more thoroughly.

Relationships With Other Constructs

Neither does the finding that 'one I like' and 'well-written' are significantly different establish conclusively that the two are measuring different processes of evaluation: the divergence could be the result of random inconsistency in completing the ratings on what are after all rather large grids. We can strengthen the finding, however, with evidence that the divergence between ratings on the two constructs is systematically related to other variables. To begin this, we can ask if each of the other constructs is systematically more closely related to 'one I like' or to 'well-written', or whether the ratings suggest that each is equally strongly related to both. The relevant data are summarized in table 51.

Table 51: Within-Grid Differences in Relationships With 'One I Like' and 'Well-Written'

	Difference in Degrees in Angular Distance[1]			
	Comprehensive School		Selective Schools	
Construct	Age 9	Age 13	Age 13	Age 17
1. Very good	-22.5***	-11.7**	-0.6	-7.0
2. Disturbing	1.9	2.6	0.6	8.8*
3. Dull	11.9*	4.2	12.7**	16.5***
4. Works out as expected...	-1.9	-4.9*	3.1	-0.3
5. Teaches a lesson	-2.7	1.2	1.8	4.0
6. Original	7.0	-0.4	4.7	6.9
7. Easy to understand	-4.0	-8.5*	-10.6*	-12.5**
8. Could happen to me...	0.9	-2.2	-5.4	2.4
9. Ends happily	1.2	-7.3**	0.5	-4.3
10. Slow-moving	8.5	6.6*	6.0	9.9*
11. Full of violence	-10.7	-0.5	0.5	4.2
12. Well-written	-	-	-	-
13. Completely absorbing	-1.1	-4.0	-5.1	-14.2**
14. Makes me think	0.5	-0.3	5.3	-0.4
15. Simple	0.0	-10.4**	-7.3*	-9.6*
16. Serious	0.3	4.1	5.1	8.5
17. One I like	-	-	-	-
18. Like real life	-3.3	0.5	-1.1	3.3
19. Interesting subject	-3.5	-4.5	-2.8	-9.4
20. One additional	-4.0	-1.6	-3.9	0.1

[1] Taking distance to 'one I like' minus distance to 'well-written'. Negative values indicate the construct is more closely related to 'one I like', positive values that it is more closely related to 'well-written'. Significance levels are based on t-tests for correlated means, two-tailed. Subjects showing no variation on either construct are omitted from the relevant comparisons, so degrees of freedom vary.

*$p < .05$
**$p < .01$
***$p < .005$

(Because of the restricted variation and unusual context of the grids in the supplementary study, these more detailed analyses were carried out only on the main study grids.) These are second-order differences: for each construct, the angular distance between it and 'well-written' and between it and 'one I like' was calculated, and then the two angles were compared to provide an estimate of the difference in the strength of the two relationships. Carrying this out separately on each individual grid leads to the average distances tabled, which have in turn been tested against the hypothesis that the average divergence is zero.

This analysis shows significant differences between the two in their relationships with a number of other constructs. In particular, 'well-written' is more closely associated with 'slow-moving' and 'dull', while 'one I like' is more closely associated with 'very good', 'easy to understand', 'completely absorbing', and 'simple'. 'Very good' becomes more evenly related to the other two constructs in the older samples, while 'easy' and 'absorbing' become more closely related to 'one I like'.

As a final exploration of liking and judging in the grids, a series of canonical correlation analyses were carried out relating 'one I like' and 'well-written' to the other constructs. A canonical analysis is rather like the principal components analyses which have already been used extensively here, but the dimensions of variation that emerge from a canonical analysis are weighted to provide the best prediction of the ratings on one set of variables on the basis of the ratings on a second set. In our case, the first canonical variable will be the weighted average of ratings on 'one I like' and 'well-written' that will correlate most highly with a second weighted average based on the remaining 18 constructs. The second canonical variable will similarly consist of two weighted averages, one representing the residual variation of the two constructs for liking and judging and the second representing the combination of the remaining variables that will correlate most highly with it. The weights are in all cases empirically derived, but if liking and judging are in fact both related to a dominant evaluative dimension, then the first canonical variable should represent their covariation,[14] with the second canonical variable having roughly equal but oppositely signed weights for the two constructs. And that is the pattern that emerges.

Two analyses were carried out on each sample. The first included all of the 18 remaining constructs as 'predictor' variables; the second excluded the overtly evaluative constructs 'very good', 'dull', 'completely absorbing', and 'interesting subject' in order to investigate the extent to which there is an evaluative component in the 'non-evaluative' part of the set. In all 8 analyses (2 each for the 4 samples), the largest canonical variable represents a combination of 'one I liked' and 'well-written' in which liking is dominant; this first canonical variable represents the covariation of the two constructs, and can be thought of as the shared evaluative component. The second canonical variable in all 8 analyses represents the separation of liking from judging, with 'well-written' dominating slightly (table 52). If the canonical correlations corresponding to this second dimension are significantly greater than zero, we will have good grounds for claiming that the separation of liking from judging is itself systematic rather than a product of random variation in the ratings. These correlations are included in table 52, and tested for significance. Using the full set of constructs in the analysis, a significant proportion of the variation in both general liking and in the contrast between liking and judging can be predicted on the basis of the other constructs. From nine

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[14] To do this, they do not have to have equal weights. The loadings (like those in a regression analysis) do not accurately reflect how strongly each of the variables is individually related to the dimension defined by the canonical variable. They are simply the set which produces the best prediction, with highly related variables tending to reduce one another's unique contribution. With only two variables in the set of most interest, the residual variation remaining for the second canonical variable can help in interpreting the first canonical variable as well.

Table 52: Summary of Canonical Analyses for Liking and Judging[1]

Analysis	Comprehensive School		Selective Schools	
	Age 9	Age 13	Age 13	Age 17
Using All Other Constructs				
First Canonical Variable				
Loading for 'one I like'	.9	.8	.7	.9
Loading for 'well-written'	.2	.3	.4	.2
Canonical correlation	.874***	.923***	.920***	.922***
Second Canonical Variable				
Loading for 'one I like'	-.8	-1.1	-1.3	-1.0
Loading for 'well-written'	1.2	1.2	1.4	1.3
Canonical correlation	.359***	.330***	.438***	.497***
Using Non-Evaluative Constructs				
First Canonical Variable				
Loading for 'one I like'	.8	.7	.8	.7
Loading for 'well-written'	.3	.4	.3	.4
Canonical correlation	.601***	.774***	.723***	.726***
Second Canonical Variable				
Loading for 'one I like'	-.9	-1.1	-1.2	-1.1
Loading for 'well-written'	1.2	1.3	1.4	1.2
Canonical correlation	.288*	.234	.326	.410***

[1] These were carried out on the main study grids, treating each story rated as a separate observation; thus for the comprehensive school samples these are based on 270 observations, for the selective school, 180. The significance of each canonical correlation is tested using the chi-square approximation to lambda, with chi-square partitioned to provide a test of the first root alone and of the second root alone.

*p < .05
**p < .01
***p < .005

to seventeen there is also a clear trend towards greater predictability of both dimensions; this may be another reflection of the general tightening of the construct system around the evaluative dimension that was reported in the previous chapter. When the four evaluative constructs are omitted from the predictor set, the general pattern remains unchanged but the magnitude of the canonical correlation falls. (For the second canonical variable in the two thirteen year olds samples, it falls below the level of statistical significance.)

These results confirm our general argument that liking and judging show a systematic divergence from one another in these samples, however much they may also be systematically related to a common evaluative core. At the same time, the highly significant canonical correlations even in the analyses using only the 'non-evaluative' constructs emphasize the extent to which evaluation is an integral part of spectator-role construing, rather than a separate response mode to be applied or not as one sees fit.

Favourite Stories and Best Stories

The problem of liking and judging was also approached in the interviews and open-ended questionnaires through a series of questions asking each student to name his favourite story, and separately to name the story which he thinks most deserves to win a prize as 'the best story'. (Carver (1967) has reported some exploratory studies with a similar set of questions, from which the present investigation is directly derived.) In different instruments these two questions were presented side by side and at widely separate points in the testing sequence. Subjects were scored as having given a single title for favourite and best stories, or as having given two different titles. (Students who gave no response to either or both questions were omitted from the analysis; those who gave lists of titles were scored as having given a single title for favourite and best if the lists overlapped.)

The results from these analyses are summarized in table 53, and are ambiguous. When the two questions are widely separated, roughly 50 percent of the children at each age give one title and 50 percent give two. If there are any trends at all, it is for the younger children to be more likely to give two different titles--which may be more a matter of lack of consistency in response over the course of a long task than of a difference between standards for liking and judging. When the two questions are asked together (becoming roughly equivalent to asking whether the favourite story is the one that should win the prize or not), there is a very gradual but consistent trend for the older students to be more likely to give two titles, though none of the contrasts between

Table 53: Proportion of Students for Whom Their Favourite Story Is Also the 'Best' Story

Condition[1]	Percent of Students					
	Interviews		Questionnaires			
			Comprehensive School		Selective Schools	
	Age 6 (n=21)	Age 9 (n=22)	Age 9 (n=30)	Age 13 (n=27)[2]	Age 13 (n=20)[3]	Age 17 (n=20)[3]
Paired Questions						
Same Story	81.0%	68.2%	73.3%	76.9%	61.1%	44.4%
Different Stories	19.0	31.8	26.7	23.1	38.9	55.6
Chi-square (df=1)	0.37		0.00	0.63	0.45	
Separated Questions						
Same Story	-	-	40.0%	48.1%	60.0%	50.0%
Different Stories	-	-	60.0	51.9	40.0	50.0
Chi-square (df=1)			0.12	0.26	0.10	
Paired Versus Separated[4]						
Chi-square (df=1)			5.50*	3.52	0.16	0.00

[1] Paired questions were given to students completing interview one and to those completing the open-ended questionnaire. Separated questions were given to those completing the questionnaire form of the main study grid.

[2] N=26 for paired questions.

[3] N=18 for paired questions.

[4] Pooling all students completing written measures, the difference between paired and separated questions is significant, chi-square = 5.44*, df=1.

*$p < .05$, two-tailed

adjacent ages are large enough to be statistically significant. At six, only 19 percent give two titles, a proportion which rises to 32 percent by nine (26 percent in the written answers), and then as high as 56 percent by seventeen. Overall there are significant differences between responses when the questions are paired and when they are separated, but the magnitude of the difference diminishes to virtually zero in the older samples. With the developmental patterns evidenced here, there is no way to tell if this is a true convergence in response under the two conditions, or just a coincidental result of having halted sampling at the point where the changing pattern (for the two questions together) happens to intersect the constant one (for the questions separated).

The general conclusion from these data must be the same as that from the analyses of average correlations: there is a suggestion that liking and judging become more divergent as age increases, but the evidence remains inconclusive.

5. Summary

This chapter is the last to present empirical results generated in the course of the present research, and as such has brought together a number of loose ends that needed to be dealt with at least in passing. Much of this has been essentially replication of earlier results, but a number of the findings are both new and important. They are worth highlighting briefly again:

1) The legacy which children at all of the ages studied bring with them to their spectator role experience is, as Britton (1968) has claimed, one of past satisfactions; all report, in general, liking the stories they discuss, and also rate them as absorbing, well-written, good, and about interesting subjects.

2) This legacy is, moreover, a varied one, extending to a variety of genres and media beyond the stories which have been most extensively studied in the present investigation.

3) The similarities among the construct systems brought to bear upon each of the differing genres are much greater than the differences, but within this general system each of the genres (as represented by 'favourite' examples of each) finds its own more or less unique place.

4) 'Juvenile' genres such as rhymes and comic books show a characteristic pattern of rejection as they are gradually outgrown; at the age at which they are most popular, however, they are not construed as very different from other spectator role forms with which the age-group is familiar.

5) Preferences for the traditional school genres (stories, poems, and plays) as opposed to the popular media (television, films, pop songs, and comic books) are more strongly influenced by the sex and socioeconomic background (as reflected in the school situation) of the students than by age differences, at least among the adolescents studied here.

6) The distinction between 'liking' and 'judging' has a clear empirical as well as theoretical basis, emerging clearly in all of the samples in which it was explored; there is inconclusive but suggestive evidence that this separation becomes greater rather than less as the student progresses through his schooling.

CHAPTER XI

REPRISE

For the last seven chapters we have been looking in detail at developmental changes in response to the spectator role. In closing, it will be more useful to look again at the value of spectator role experience than to attempt to recapitulate the detailed findings which have already been highlighted in the individual chapter summaries.

Literature and Experience

Basic to the effect of literature (and of all art) as we have been describing it, is its reliance upon Langer's (1967) subjective rather than objective modes of feeling. With transactional uses of language the appeal is to externally structured and verified tools of argument and analysis; with poetic uses, the appeal is to the internal coherence and validity of the personal system of construing. These two modes of language use, like the modes of feeling which underlie them, remain closely and inseparably linked; thus there has been no contradiction in studying literary response through transactional discussions of spectator role experience.

Transactional or discursive writing has its own range of tasks for which it is especially suited; these have been discussed by others and are not our direct concern here (cf. Britton, 1970; Cassirer, 1944). The poetic mode, however, has its own unique and essential tasks which cannot be slighted if individual and cultural development is to proceed smoothly. Britton (1971b) has called the spectator role assimilative, and while we need to note that Piaget's processes of assimilation and accommodation are both applicable to spectator role experience, at another level Britton's description is very much to the point. Assimilation is the way in which new experience is given its meaning; it is a progressive, forward-moving process in that the new experience is in turn incorporated into the framework which assigns that meaning. In this process the world-view is primary and focal, whereas in the complementary process of accommodation the events of the world dominate more fully. And the primacy of the world-view is one characteristic of the spectator role as we have been describing it.

It is worth contrasting art as a process of assimilating experience with the view of art as a means to 'broaden' or 'explore' experience. The American progressive educators in particular tended to conceptualize art, and particularly literature, as offering one or another form of experience; they found in this conceptualization a relatively easy way to defend literature against the ever-present claims of more 'practical' subjects. These educators had many valuable insights into literary education, but they lacked a psychological or philosophical framework to give their insights precision and scope. In the end the concern with broadening experience degenerated into a concern with providing vicariously gained knowledge of the world--knowledge that could as easily be gained in other ways.

Any experience, whether it originates in spectator role discourse or 'in the world', is construed by the individual on his own terms; but there is an essential difference between experience gained through these two means. When we are talking of events in the world, we are talking of events which are unstructured; they are 'raw' experience that will be given structure only when they are construed. The structure they are finally given may fit more or less well, may be a full or a partial ordering of the experience, but it is a structure which in the first instance does not have to compete with alternative structures offered by other people.

With spectator role discourse, on the other hand, there is always a second manner of construing the experience to be considered--the manner which makes us talk of the discourse as a 'verbal object' or 'structured whole'. This structure is a record of man's processes of construing, a record unconsciously projected into the shaped experience of the work, but governed by accepted techniques of form and structure which allow it to be 'read back' by an audience just as the growth rings of the tree trunk in our first chapter allow the initiated to read back information about weather conditions in seasons past. There is thus a sense in which response to the spectator role is always a process of reconstruing, never simply of construing; there is always another point of view which the auditor is implicitly evaluating even if he does not realize it is there. This is the crucial distinction between spectator role experience and direct experience of the world: the process of construing a text is always a social process in a way that construing experience can never be.[1]

Decontextualization

Just as the process of construing experience can be seen as imposing a personal order upon it, we can also recognize a complementary process in which some part of that order is made public. Britton (1973) has called this a decontextualization of experience; it is an abstraction or projection out of our necessarily personal system of construing, our personal context, into a public arena of shared experience. This is not an inverse of the process of construing, but it is a complement to it; it gives back both the experience which was initially construed and the structure imposed upon that experience in the process of construing. Decontextualization requires the mastery of two very different sets of rules-of-use for language production, one for the poetic and one for the transactional modes.

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[1] These arguments about the social nature of the process, and the underlying tension between the reader's and the writer's modes of construing, are of course equally true of transactional writing, though in that case the problem of direct versus vicarious experience does not arise in the same way.

The process of separating our thoughts from the matrix in which they are embedded and making them public through language is very difficult, but it is also very powerful. The speaker or author learns from it just as his audience does, coming to know what he thinks as part of the very process of putting it into words. Often, the first words are clearly wrong--the decontextualization produces utterances whose implicit view-of-the-world is not the view the author wants to convey. This is part of the process of drafting and redrafting, of 'finding the right words'. To the extent that decontextualization is ultimately successful--and this is the paradox of the terminology--the language that results carries the earlier contextualization or manner of construing within it. If it is 'accurate' and 'honest', if the constitutive and regulative rules of language-use have been mastered, the discourse invites its audience to share in a part of the author's world.

Whether we are talking about pop music or television comedy, Shakespeare or Albee, it is only through spectator role discourse that we are able to talk about this personal world. It is not that our knowledge of our own world-view is relatively imprecise and unformulated, full of unplumbed emotional depths which we approach only hesitantly, if at all; it is because the way in which we construe experience is not organized in the analytic, cumulative forms which are accessible through transactional discourse. At best, in transactional writing we can isolate one strand of our process of construing, analysing and clarifying its constituent parts; but in the end that transactionally isolated experience must be reintegrated, assimilated, as a functional subsystem within a complex psychological whole whose operation is akin, perhaps, to Polanyi's (1969) 'mutual adjustment of independent initiatives'. It is only in the spectator role, with its differing resources of form and structure, that these often conflicting 'initiatives' can be brought into perspective and balance.

The Elaborative Choice

It is the social process implicit in decontextualization which ultimately is the source of the second dimension which we have proposed as part of our model of language use. In offering up a point of view, a discourse implicitly assumes a certain relationship between the way it depicts experience and the generalized patterns of construing expected in its audience: it can seek to change the context from which it stems, leading to a conversion to a new construct system, or it can seek to articulate that context, confirming its essential outline even as it reconciles and explores it in its detail. This is the dimension of language use which we have called the 'elaborative choice'. For the author, it is a choice of the way in which the particular experience which he is presenting should be assimilated, and his discourse will be structured (not necessarily consciously) toward that end. For the reader, it is a choice of whether or not to accept the choice the author has made: in the transactional mode he judges whether the argument is 'right' or 'wrong', in the poetic, whether the experience is 'true' and 'convincing'. This reaction is a highly personal one, produced by the interaction of the particular reader with the particular work; it inevitably differs from reader to reader and also changes over time as a given reader's own construct system develops and matures. A work which produces a true conversion from one basis of construing to another can have its effect only once; after he has become converted, the book becomes a reference point or summary statement of a point of view already agreed.

Developmental Constraints

These general claims hold across the whole developmental range, though as the earlier chapters have attempted to demonstrate there are also clear and striking changes in the nature of literary response at different ages. The most fundamental changes seem to center in three areas: 1) the way in which the reader perceives the relationship between the experience of the work and his own life, 2) the extent to which he has mastered the techniques and conventions--the rules-of-use--of literary form, and 3) the complexity of the experience (both personal and literary) which he is able to master. Virtually all of the findings which we and others have reported can be subsumed under one or another of these headings, though they serve more to highlight important areas of developmental change than to delineate mutually exclusive ones.

Mastery of conventions and increased complexity are relatively straight-forward processes and will not be reviewed again here; the most important findings with respect to them have been summarized at the end of the individual chapters. Changes in the perceived relationships between literature and life, however, are striking and influence attitudes toward spectator role experience in general. For the very young child the world of stories is part of the world in which he lives; its events are as important and meaningful to him as anything else that happens. The separation of these worlds when he is finally confronted with the distinction between fact and fantasy is often relatively distressing; for a while at least, a story is accepted only if the child thinks it is true. The slightly older child, once he has reconciled himself to the distinction between fact and fantasy, continues to view stories from the perspective of a unitary frame of reference: the events in a story remain 'made up' correlatives of events in the world. There is no question of differing interpretations of the same world.

It is not until the onset of adolescence, and with it of Piaget's formal operational modes of thought, that spectator role discourse begins to be recognized as offering simply a possible view of the world, one among many interpretations. Interestingly, this new perspective often brings a rejection of fantasy similar to that of younger children when they discover that some works are not 'true': the early adolescent often rejects works which are not realistic presentations of the world as he sees it. Only gradually, as the new perspective upon literature becomes more familiar and more thoroughly mastered, are the conventions of fantasy and the possibilities inherent in alternative views of the world accepted freely and openly.

Through all of these stages, the spectator role continues to fulfil its world-ordering functions--more strongly perhaps for the younger children who accept the spectator role as offering a view of the world, than for older students who can set it aside as simply a view of the way things are. The experience of the work is no less patterned simply because the young child does not recognize the pattern as yet; it is only through repeated experience with such patterns that stable expectations can eventually be built up.

Because the work functions as a patterning of experience, however, the relationship between literature and life is a complex one. A child's fairy tale, for example, does not simply teach him that the world is full of witches and giants. In another sense the tale uses fantasy characters (whom the child will soon enough recognize as 'make believe') to give body and form to the child's worst, shapeless fears--and in the process to begin to conquer them. Just as we use transactional language to give form and precision to our 'objective feeling', so we use poetic language to give form, and the possibility of control through form, to our more 'subjective', personal feeling. Sometimes in young children this process is unself-consciously revealed. Barry M. (4;9), in one of the stories in the Pitcher and Prelinger (1963) collection, recounts a tale of a boy whose parents died and who was beset by various tormentors--all ending happily when he "like Hansel and Gretel" pushed them into the oven and "lived happily ever after and that's the end" (pp. 71-72).

Such stories offer a culturally provided frame for both expressing and trapping such fears, and through this expression and control freeing the individual from their tyranny. Literature is one of the many instruments of socialization which a culture provides, whether this is thought of in terms of the 'cultural heritage' or the popular culture which may be more transient but is no less influential.

Developmental constraints in literary response are in this sense similar to those operating in all areas of socialization: the process begins as what is sometimes called 'primary socialization', the induction of the child into the accepted modes and conventions of the society of which he is a part, and later continues as part of a process of secondary socialization, during which the individual comes to recognize and choose among sometimes conflicting views.

The Teaching of Literature

These discussions have not been concerned directly with the role of the teacher, or of formal education, in the development of literary response; to offer a prescription about what and how to teach at this point would be unjustifiably presumptuous. The discussions do, however, imply a certain attitude toward literature and literary education, an attitude shared by many but certainly not by all teachers.

The main point is that discourse in the spectator role offers a way to articulate and explore our view of the world, presenting alternatives, clarifying dark corners, posing contradictions, reconciling conflicts within the realm of our subjective, personal experience. The teacher's role in this process is one of questioning and cultivating response rather than one of teaching critical principles; his goal should be to illuminate and clarify the order in the world which the work seeks to capture and reflect.

Formal studies of literature--concern with rhetorical devices, stanza forms, historical trends--would seem to have little place in this process, but a gradually evolving sense of form is clearly crucial to it. Literary experience depends upon the mastery of the underlying conventions which govern the exchange between author and audience; without the conventions no exchange can take place. The source of this sense of form is Britton's (1968) 'legacy of past satisfactions', satisfactions which have little to do with training taste or learning rules, and much to do with valuing and being allowed to value those earlier spectator role experiences which have given pleasure. The patterns of development found in the present study certainly do not suggest that encounters with immature or juvenile literature are any less important, or any less educative, than later encounters with more sophisticated works.

Our discussion must stop at this point, just at the beginning of the problem of reformulating education in literature and the arts. What it has tried to provide is a framework for that reformulation, grounded on the one hand in a view of the place of literature in our lives, and on the other hand in the developmental course of response. If the exploration has been successful, it should allow us to move forward with a somewhat clearer sense of direction and a somewhat clearer sense of purpose in our efforts as teachers of literature.

APPENDIX I

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* $p < .05$
** $p < .01$
*** $p < .005$

Supplementary Table 1: Development of Story-Form from First to Second Story

Second Story:	Number of Subjects[1] More Mature	Less Mature	McNemar's Test[2]
Formal beginning	23	13	2.25
Formal ending	11	4	2.40
Consistent past tense	12	9	<1.00
Causal links	38	21	4.34*
Climax of action	28	17	2.22
Plot form	33	22	1.82
Use of dialogue	14	6	2.45
Fantasy: characters	21	11	2.53
Fantasy: actions	17	21	<1.00
Fantasy: setting	17	12	<1.00
Self in story	7	11	<1.00

	Average Change, First to Second	t-test[3]
Number of characters	-.13	-0.51
Number of incidents	-.24	-0.97
Number of words	1.96	0.35
Number of T-units	.44	0.78
Words per T-unit	-.06	-0.31

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[1] The overall n is 90; the number of stories showing no change on each variable is not separately tabled.

[2] Distributed as chi-square, df=1; tested here against one-tailed probability that the second story would be more mature.

[3] Tested against $\mu = 0$, df=89.

Supplementary Table 2: Status of Action and Strength of Theme

Status of Action	Theme:	Number of Stories Strong	Weak	Adventure	Cramer's V[1]
Acceptable		1	32	1	
Natural disaster		14	9	3	.643
Conventional violence		4	1	14	
Deliberate wrong		30	7	4	

	Percent of Stories Age 2 (n=30)	Age 3 (n=30)	Age 4 (n=30)	Age 5 (n=30)	Boys (n=60)	Girls (n=60)
Acceptable action	30.0%	30.0%	40.0%	13.3%	23.3%	33.3%
Natural disaster	43.3	16.7	16.7	10.0	25.0	18.3
Conventional violence	3.3	23.3	6.7	30.0	21.7	10.0
Deliberate wrong	23.3	30.0	36.7	46.7	30.0	38.3
Chi-square for age, df=9			24.99***			
Chi-square for sex, df=3			4.86			
Strong theme	53.3%	43.3%	30.0%	36.7%	43.3%	38.3%
Weak theme	40.0	36.7	60.0	26.7	31.7	50.0
Adventure theme	6.7	20.0	10.0	36.7	25.7	11.7
Chi-square for age, df=6			15.40*			
Chi-square for sex, df=2			5.56			

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[1] Cf. Nie *et al*, 1970.

Supplementary Table 3: Means and Univariate Effects for Contrasts Showing Significant Interactions, Table 19

	Average Percent of Response						
	Age 13		Age 17		F-Ratios (df=1;36)		
Response Category	Boys (n=10)	Girls (n=10)	Boys (n=10)	Girls (n=10)	Age	Sex	AS
Engagement	5.4%	1.1%	0.0%	13.2%	0.89	1.57	5.92*
Perception	66.3	77.2	19.0	43.6	20.72***	3.97*	0.59
Interpretation	8.3	0.0	27.6	11.1	5.61*	3.74	0.40
Evaluation	14.5	20.0	45.0	31.1	6.45*	0.25	1.50
Miscellaneous	5.5	1.3	8.4	1.0	0.32	5.91*	0.45

Supplementary Table 4: Means and Univariate Effects for Contrasts Showing Significant Interactions, Table 20

	Average						
	Comprehensive School						
	Age 9		Age 13		F-Ratios (df=1;56)		
Measure	Boys (n=15)	Girls (n=15)	Boys (n=15)	Girls (n=15)	Age	Sex	AS
Number of words	41.4	63.7	67.5	114.9	7.23**	5.90*	0.77
Number of T-units	5.0	6.3	5.3	11.5	3.06	5.92*	2.49
Words per T-unit	8.6	10.2	12.8	10.8	7.66**	0.06	4.14*
Number of elements	1.6	1.5	3.4	3.1	35.71***	0.48	0.05
T-units per element	3.5	5.6	1.7	4.1	2.52	4.47*	0.02

Supplementary Table 5: Within-Subject Comparisons of Oral and Written Responses, Age Nine

Variable	Mean Difference (Oral - Written)	Standard Error	t-test (df=20)
Number of words	64.95	26.22	2.48*
Number of T-units	9.05	2.83	3.20***
Number of elements	0.76	0.28	2.69**
Words per T-unit	-1.78	0.59	-3.00**
T-units per element	4.35	2.36	1.84
Percent engagement	0.00	0.00	-
Percent perception	9.05	9.91	0.91
Percent interpretation	0.00	0.00	-
Percent evaluation	-8.33	9.34	-0.89
Percent miscellaneous	-4.23	3.36	-1.26

Supplementary Table 6: First Response When Asked, "What Is the Story of 'Little Red Riding Hood' About?"

	Percent		
Response	Age 6 (n=22)	Age 9 (n=22)	Tests of Age Difference, two-tailed
1. None	9.1%	0.0%	Chi-square = 9.76**, df=2
2. Retelling	31.8	4.5	(comparing 2,3,4)
3. Any synopsis	13.6	36.4	
4. Any summary	45.5	59.1	Exact Test = .006**
5. Evaluation only	0.0	0.0	(comparing 2, 3+4+5)

Supplementary Table 7: Points Used in Scoring Details in Retelling of the Fable

One point each for mentioning:

First Stanza
1. any number of men
2. blind
3. a place (Indostan)
4. going to see
5. Elephant
6. learning
7. by observation

Second Stanza
8. one (man)
9. touched, bumped
10. heavy, sturdy, big
11. side
12. said
13. bless me
14. wall

Third Stanza
15. one (man)
16. touched
17. tusk
18. smooth, sharp
19. said
20. wonder
21. spear

Fourth Stanza
22. one (man)
23. touched
24. trunk
25. squirming
26. said
27. snake

Fifth Stanza
28. one (man)
29. touched
30. knee
31. plain, clear
32. said
33. tree

Sixth Stanza
34. one (man)
35. touched
36. ear
37. deny
38. said
39. marvel
40. fan

Seventh Stanza
41. one (man)
42. touched
43. tail
44. grope
45. said
46. rope

Eighth Stanza
47. and so
48. a place
49. argued
50. opinions
51. right
52. wrong

Supplementary Table 8: Titles Suggested by Class Teachers for Use on Oral Grids

Category[1]	Age 6	Age 9
1. Constant for all	Cinderella.	Cinderella.
2. Reading series	Ladybird (Peter and Jane).	Ladybird (Peter and Jane).
3. A story the children ask to hear over	Jack and the Beanstalk; The Gingerbread Boy.	Beauty and the Beast; Snow White; The Lion, the Witch, and the Wardrobe.
4. A story they have recently heard	Goldilocks; The Bear in the Air; Rapunzel.	Paddington Bear; The Silver Chair; Chitty Chitty Bang Bang.
5. A story they find difficult	Peter and the Wolf; Peter Pan; Frederick.	Stig of the Dump; Heartsease; The Overland Launch.
6. An easy, 'light' story for them	Goldilocks; The Gingerbread Boy.	Peter Pan; Pinnochio; The Three Little Pigs.
7. Another story they like	The Gingerbread Boy; Snow White; Ping.	Pinnochio; Beauty and the Beast; Goldilocks.
8. Another story they find difficult	Wind in the Willows; Hansel and Gretel; Brave Soldier Janos.	Peter and the Wolf; Harry the Dirty Dog; The Silver Sword.

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[1] These were not rigidly adhered to by all of the teachers, though all six provided titles representing 'different types' of stories.

Supplementary Table 9: Mean Percent of Total Variation Accounted for by Stories Selected by Class Teachers as Examples of Specific Types

Story or Story-Type	Mean Percent of Within-Grid Variation		Multivariate Analysis of Variance[1]	
	Age 6 (n=22)	Age 9 (n=22)	F-Statistics (df=7;34)	Univariate Effects (.05)
1. Cinderella	11.8%	9.2%	Age: 1.83	3,5
2. Reading series	19.5	18.8		
3. Asked to hear over	14.5	9.4	Sex: 0.83	-
4. Recently heard	10.2	13.4		
5. Difficult	9.6	15.0	AS:[2] 2.53*	1
6. Easy	14.8	12.5		
7. Another liked	10.0	10.8		
8. Another difficult	9.5	10.9		

---

[1] Because of the linear dependency in the scores, only the first 7 were included in the multivariate analysis.

[2] At six, 'Cinderella' accounts for a higher proportion of the girls' variation; at nine, for a higher proportion of the boys'.

Supplementary Table 10: Mean Percent of Total Variation Accounted for by Stories Selected as Examples of Specific Types, Written Grids

Story or Story-Type	Mean Percent of Within-Grid Variation			
	Comprehensive School		Selective Schools	
	Age 9 (n=30)	Age 13 (n=30)	Age 13 (n=20)	Age 17 (n=20)
1. Cinderella	10.9%	16.4%	18.2%	20.7%
2. Favourite story	9.2	8.9	8.0	7.8
3. Not liked	17.8	20.5	18.5	18.9
4. Deep story	11.9	8.8	8.4	8.7
5. Easy story	11.9	8.3	9.7	8.3
6. Liked	7.7	8.4	7.8	8.8
7. Hard story	13.6	11.7	12.8	9.5
8. Moving or gripping story	8.4	8.3	8.9	8.4
9. Story heard recently	8.7	8.8	7.6	8.9

Multivariate F-Statistics[1]	9 vs. 13	13 vs. 13	13 vs. 17
Age (or school)	4.16***	1.92	2.06
Sex	3.63***	5.92***	2.08
Interaction	1.15	0.85	3.75***
(df for each effect)	(8;49)	(8;39)	(8;29)
Univariate Effects (.05)			
Age (or school)	1,4,5	-	7
Sex[2]	1	1,6,8	3
Interaction[3]	-	-	3,6,8

---

[1] Because of the linear dependency in the scores, only the first 8 were included in the multivariate analyses.

[2] Cinderella accounts for a higher proportion of the boys' variation, 'liked' and 'moving' stories for a higher proportion of the girls'.

[3] At the selective schools, the proportion of variation accounted for by 'disliked' stories goes up between 13 and 17 for the girls but is constant for the boys; the proportion due to 'liked' and 'moving' stories both go up for the boys and down for the girls.

Supplementary Table 11: Breakdown of the Total Variaion in Ratings of Stories

	Oral Grids		Written Grids			
			Comprehensive School		Selective Schools	
	Age 6	Age 9	Age 9	Age 13	Age 13	Age 17
Total Variation						
SS	5069.0	3231.0	15625.1	13905.6	7887.7	8410.8
df	1750	1750	5380	5380	3580	3580
Between Subjects						
SS	2334.5	802.0	3756.4	2137.2	1176.6	1013.7
df	210	210	580	580	350	350
Variance ratios		2.91**	1.70**	1.76**	1.19	1.16
Within Subjects						
Total SS	2734.5	2429.0	11868.7	11768.4	6711.1	7397.1
df	1540	1540	4800	4800	3200	3200
MS	1.776	1.577	2.473	2.452	2.097	2.312
Variance ratios		1.13	1.57*	1.01	1.17	1.10
Story-Types						
SS	134.4	312.0	1998.4	4060.6	2807.3	2607.4
df	70	70	160	160	160	160
MS	1.920	4.458	12.490	25.379	17.546	16.296
Variance ratios		2.32**	2.80**	2.03**	1.45*	1.08
Story x Subject						
SS	2600.1	2117.0	9870.2	7707.8	3903.8	4789.7
df	1470	1470	4640	4640	3040	3040
MS	1.769	1.440	2.127	1.661	1.284	1.576
Variance ratios		1.23*	1.48*	1.28*	1.29*	1.23*
Within-Age, Story x Subject ANOVAs						
Subjects: F-ratio	6.28**	2.65**	3.05**	1.21*	2.39**	2.17**
df	210;1470	210;1470	580;4640	580;4640	380;3040	380;3040
Story-Types: F-ratio	1.09	3.10**	5.87**	15.28**	13.67**	10.34**
df	70;1470	70;1470	160;4640	160;4640	160;3040	160;3040

Supplementary Table 12: Analysis of Variation, Main-Study Oral Grids

Source	df	Mean Square	F-Ratio[1]
Between Grids (G)			
Age (A)	1	1.238	<1.00
Sex (S)	1	1.314	<1.00
AS	1	1.641	<1.00
G(AS)	40	18.374	
Within Grids			
Elements (E)	7	1.380	<1.00
AE	7	4.551	2.54
SE	7	0.582	<1.00
ASE	7	0.900	<1.00
GE(AS)	280	1.930	
Constructs (C)	9	286.935	48.91***
AC	9	35.204	6.00*
SC	9	21.605	3.68
ASC	9	10.230	1.74
GC(AS)	360	5.867	
EC	63	4.098	2.58
AEC	63	2.330	1.47
SEC	63	1.378	<1.00
ASEC	63	1.326	<1.00
GEC(AS)	2520	1.586	

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[1] Tested using the reduced degrees of freedom of the conservative test; using the full degrees of freedom, SC, EC, AE, and AEC effects are also significant at at least the .05 level.

Supplementary Table 13: Analysis of Variation, Comprehensive School Grids.

Source	df	Mean Square	F-Ratio[1]
Between Grids (G)			
Age (A)	1	59.556	5.12*
Sex (S)	1	11.343	<1.00
AS	1	16.178	1.39
G(AS)	56	11.628	
Within Grids			
Elements (E)	8	131.979	41.49***
AE	8	17.020	5.35*
SE	8	11.997	3.77
ASE	8	1.504	<1.00
GE(AS)	448	3.181	
Constructs (C)	19	247.867	52.65***
AC	19	26.232	5.57*
SC	19	8.317	1.77
ASC	19	3.495	<1.00
GC(AS)	1064	4.708	
EC	152	26.592	14.64***
AEC	152	5.114	2.82
SEC	152	2.705	1.49
ASEC	152	1.475	<1.00
GEC(AS)	8512	1.816	

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[1] Tested using the reduced degrees of freedom of the conservative test; using the full degrees of freedom, SE, SC, AEC, and SEC effects are also significant at at least the .05 level.

Supplementary Table 14: Analysis of Variation, Selective School Grids

Source	df	Mean Square	F-Ratio[1]
Between Grids			
Age (A)	1	30.550	5.02*
Sex (S)	1	1.590	<1.00
AS	1	13.607	2.24
G(AS)	36	6.086	
Within Grids			
Elements (E)	8	106.096	51.78***
AE	8	3.826	1.87
SE	8	3.889	1.90
ASE	8	4.053	1.98
GE(AS)	288	2.049	
Constructs (C)	19	135.756	50.36***
AC	19	6.781	2.52
SC	19	2.813	1.04
ASC	19	3.084	1.14
GC(AS)	684	2.696	
EC	152	28.235	20.26***
AEC	152	1.603	1.15
SEC	152	1.636	1.17
ASEC	152	1.093	<1.00
GEC(AS)	5472	1.393	

---

[1] Tested using the reduced degrees of freedom of the conservative test; using the full degrees of freedom, ASE and AC effects are also significant at at least the .05 level.

Supplementary Table 15: Intraclass Correlations (r_I), Total Variation (V), and Proportion of Variation Explained by Components One to Three (R^2) for Main-Study Oral Grids[1]

Construct	Age 6			Age 9		
	r_I	V	R^2	r_I	V	R^2
1. Very good-not	.023	204.4	.194	.111	230.0	.740
2. Teaches a lesson	.021	655.9	.593	.012	553.9	.960
3. Really happened	-.018	590.9	.490	.025	96.0	.168
4. Easy to understand	.046	682.2	.608	.140	467.0	.603
5. Ends happily	-.027	630.4	.624	-.043	56.9	.130
6. Interesting subject	-.008	434.4	.436	.100	260.0	.740
7. Long-short	.012	651.9	.624	.124	475.4	.706
8. For older-for younger	.029	395.6	.303	.222	262.4	.436
9. Serious-funny	.011	675.3	.706	.008	573.8	.449
10. One you like-don't	-.005	148.0	.185	.069	255.7	.706
All	.004	5069.0	.545	.087	3231.0	.645

---

[1] Based on ratings of 176 stories at each age

Supplementary Table 16: Intraclass Correlations (r_I), Total Variation (V), and Proportion of Variation Explained by Components One to Three (R^2) for Main Study Written Grids[1], Part One

Construct	Comprehensive School					
	Age 9			Age 13		
	r_I	V	R^2	r_I	V	R^2
1. Very good	.463	691.6	.706	.669	652.2	.810
2. Disturbing	.111	605.0	.314	.149	758.7	.423
3. Dull	.218	650.9	.504	.408	704.0	.706
4. Works out as expected	.064	914.6	.314	.232	760.8	.476
5. Teaches a lesson	.042	796.9	.314	.188	722.6	.504
6. Original	-.005	842.2	.203	.250	695.3	.449
7. Easy to understand	.207	807.2	.593	.305	686.7	.578
8. Could happen to me	.025	631.2	.123	.095	697.4	.518
9. Ends happily	.060	527.4	.250	.189	710.7	.476
10. Slow-moving	.016	839.3	.230	.173	758.3	.397
11. Full of violence	.093	697.5	.348	.184	659.3	.281
12. Well-written	.174	528.7	.462	.402	360.3	.593
13. Completely absorbing	.076	929.9	.325	.523	660.2	.689
14. Makes me think	.163	1021.9	.449	.439	727.4	.672
15. Simple	.145	915.5	.706	.351	771.9	.504
16. Serious	.128	891.4	.563	.397	725.4	.608
17. One I like	.431	693.7	.740	.644	687.4	.826
18. Like real life	.091	894.3	.336	.231	765.6	.640
19. Interesting subject	.182	853.7	.518	.522	664.2	.706
20. One additional	-.002	892.3	.168	.055	737.3	.176
All	.140	15625.1	.410	.322	13905.6	.548

---

[1] Based on ratings of 270 stories at each age at the comprehensive school.

Supplementary Table 16, Part Two

	Selective Schools[2]					
	Age 13			Age 17		
Construct	r_I	V	R^2	r_I	V	R^2
1. Very good	.749	325.8	.828	.509	278.2	.640
2. Disturbing	.250	425.8	.449	.248	475.5	.757
3. Dull	.518	401.8	.723	.567	402.1	.310
4. Works out as expected..	.224	400.6	.360	.254	439.0	.303
5. Teaches a lesson	.101	384.2	.230	.106	411.2	.325
6. Original	.248	359.1	.314	.287	363.0	.436
7. Easy to understand	.433	411.6	.706	.355	466.4	.656
8. Could happen to me...	.132	379.0	.672	.050	482.6	.518
9. Ends happily	.218	362.6	.270	.141	470.7	.436
10. Slow-moving	.437	384.9	.504	.373	462.6	.578
11. Full of violence	.149	402.6	.336	.134	476.8	.504
12. Well-written	.631	253.4	.672	.428	217.0	.504
13. Completely absorbing	.655	423.4	.828	.528	430.2	.792
14. Makes me think	.463	410.1	.578	.356	445.0	.672
15. Simple	.354	453.6	.656	.358	498.6	.608
16. Serious	.383	433.9	.608	.372	406.9	.608
17. One I like	.728	450.2	.846	.680	377.6	.774
18. Like real life	.362	437.6	.656	.228	521.7	.706
19. Interesting subject	.521	307.9	.593	.413	297.5	.640
20. One additional	.098	479.8	.194	.175	488.2	.336
All	.388	7887.7	.548	.318	8410.8	.578

---

[2] Based on ratings of 180 stories at each age at the selective schools.

Supplementary Table 17: Labels for Opposite Poles of Supplied Constructs

Construct	Non-Negative Mode[2] Label (Number using)	Percent No Response or Negative					Percent Giving Less-Frequent Poles[1]				
		Comprehensive School		Selective Schools			Comprehensive School		Selective Schools		
		Age 9 (n=30)	Age 13 (n=30)	Age 13 (n=20)	Age 17 (n=20)	All (n=100)	Age 9 (n=30)	Age 13 (n=30)	Age 13 (n=20)	Age 17 (n=20)	All (n=100)
1. Very good	bad (118)	13.3%	6.7%	0.0%	5.0%	7.0%	3.3%	13.3%	40.0%	50.0%	33.0%
2. Disturbing	happy(9)	69.3	26.7	30.0	20.0	39.0	20.0	70.0	55.0	75.0	54.0
3. Dull	interesting (35)	30.0	6.7	0.0	0.0	11.0	70.0	70.0	75.0	50.0	67.0
4. Works out...	surprise end (9)	93.3	69.3	75.5	50.0	74.0	6.7	23.3	25.0	30.0	20.0
5. Teaches a lesson	no moral (7)	100.0	36.3	60.0	20.0	57.0	0.0	63.3	25.0	75.0	39.0
6. Original	copied (10)	83.3	33.3	55.0	30.0	52.0	16.7	46.7	45.0	65.0	41.0
7. Easy...	hard (62)	46.7	13.3	0.0	5.0	19.0	0.0	36.7	55.0	90.0	40.0
8. Could happen...	impossible (18)	96.7	53.3	35.0	5.0	53.0	3.3	30.0	45.0	80.0	35.0
9. Ends happily	ends sad (90)	43.3	26.7	15.0	20.0	28.0	16.7	10.0	25.0	15.0	16.0
10. Slow-moving	fast-moving (100)	20.0	6.7	0.0	0.0	8.0	6.7	43.3	50.0	50.0	35.0
11. Full of violence	peaceful (24)	73.3	46.7	55.0	35.0	54.0	20.0	33.3	40.0	35.0	31.0
12. Well-written	badly-written (90)	46.7	20.0	0.0	5.0	21.0	3.3	26.7	20.0	25.0	18.0
13. Absorbing	boring (32)	83.3	50.0	35.0	5.0	48.0	10.0	33.3	45.0	45.0	31.0
14. Makes me think	boring (35)	96.7	53.3	50.0	20.0	59.0	0.0	40.0	50.0	75.0	37.0
15. Simple	hard (74)	26.7	3.3	0.0	5.0	10.0	10.0	33.3	80.0	85.0	46.0
16. Serious	funny (29)	76.7	10.0	10.0	5.0	29.0	16.7	62.0	70.0	90.0	55.0
17. One I like	one I hate (24)	83.3	73.3	70.0	75.0	76.0	6.7	20.0	10.0	15.0	13.0
18. Like real life	unreal (30)	86.7	23.3	45.0	25.0	47.0	13.3	50.0	45.0	60.0	40.0
19. Interesting...	boring (55)	69.3	50.0	30.0	10.0	44.0	13.3	16.7	20.0	25.0	18.0

[1] Less-frequent poles include all responses not classified as the modal label for the construct, as a simple negation, or as no response.

[2] The mode is based on all subjects in the main and supplementary studies who completed written grids; n = 160.

Supplementary Table 18: Constructs Rated as 'One of the Two Most Important'

Construct	Percent of Students Comprehensive School Age 9 (n=30)	 Age 13 (n=30)	 Selective Schools Age 13 (n=20)	 Age 17 (n=20)	 All (n=100)
1. Very good	30.0%	30.0%	20.0%	5.0%	23.0%
2. Disturbing	0.0	6.7	15.0	20.0	9.0
3. Dull	0.0	0.0	0.0	5.0	1.0
4. Works out as expected...	3.3	3.3	0.0	0.0	2.0
5. Teaches a lesson	16.7	6.7	5.0	10.0	10.0
6. Original	3.3	30.0	10.0	15.0	15.0
7. Easy to understand	13.3	6.7	15.0	0.0	9.0
8. Could happen to me...	0.0	0.0	0.0	0.0	0.0
9. Ends happily	10.0	0.0	5.0	0.0	4.0
10. Slow-moving	0.0	0.0	0.0	0.0	0.0
11. Full of violence	6.7	13.3	0.0	5.0	7.0
12. Well-written	33.3	40.0	55.0	35.0	40.0
13. Completely absorbing	10.0	13.3	35.0	50.0	24.0
14. Makes me think	6.7	6.7	10.0	40.0	14.0
15. Simple	3.3	0.0	0.0	0.0	1.0
16. Serious	20.0	0.0	0.0	0.0	6.0
17. One I like	10.0	6.7	5.0	5.0	7.0
18. Like real life	3.3	6.7	0.0	0.0	3.0
19. Interesting subject	30.0	26.7	25.0	10.0	24.0
20. One additional	0.0	3.3	0.0	0.0	1.0

Supplementary Table 19: Constructs Rated as 'One of the Two Least Important'

Construct	Percent of Students Comprehensive School Age 9 (n=30)	 Age 13 (n=30)	 Selective Schools Age 13 (n=20)	 Age 17 (n=20)	 All (n=100)
1. Very good	0.0%	0.0%	5.0%	5.0%	2.0%
2. Disturbing	16.7	13.3	5.0	0.0	10.0
3. Dull	40.0	13.3	0.0	5.0	17.0
4. Works out as expected...	6.7	16.7	20.0	15.0	14.0
5. Teaches a lesson	20.0	6.7	40.0	5.0	17.0
6. Original	6.7	3.3	10.0	5.0	6.0
7. Easy to understand	3.3	3.3	10.0	10.0	6.0
8. Could happen to me...	6.7	33.3	30.0	50.0	28.0
9. Ends happily	10.0	20.0	35.0	45.0	25.0
10. Slow-moving	30.0	23.3	10.0	0.0	18.0
11. Full of violence	0.0	16.7	0.0	25.0	10.0
12. Well-written	6.7	0.0	0.0	0.0	2.0
13. Completely absorbing	10.0	10.0	0.0	0.0	6.0
14. Makes me think	6.7	6.7	10.0	0.0	6.0
15. Simple	20.0	10.0	0.0	15.0	12.0
16. Serious	6.7	0.0	0.0	5.0	3.0
17. One I like	6.7	6.7	5.0	0.0	5.0
18. Like real life	3.3	13.3	15.0	5.0	9.0
19. Interesting subject	0.0	3.3	5.0	0.0	2.0
20. One additional	0.0	0.0	0.0	10.0	2.0

Supplementary Table 20: Average Ratings of Each Story-Type, Oral Grids[1]

Construct	Story-Type: Cinderella		Renders		Hear Over		Recent		Hard		Easy		Like		Hard	
Age:	6	9	6	9	6	9	6	9	6	9	6	9	6	9	6	9
1. Very good-not	1.3	1.4	1.8	2.5	1.6	1.1	1.4	1.4	1.3	1.5	1.3	1.4	1.0	1.2	1.2	1.4
2. Teaches a lesson-doesn't	2.9	2.4	1.9	2.0	2.6	2.9	2.5	2.4	2.8	2.3	2.6	2.9	2.6	3.0	2.1	2.2
3. Really happened-made up	4.1	4.9	3.5	4.6	3.9	5.0	3.7	4.7	3.7	4.5	3.4	4.5	3.9	5.0	3.9	4.8
4. Easy to understand-hard	2.6	1.5	2.0	1.5	2.8	1.8	3.2	2.6	3.0	3.3	2.1	2.0	3.4	1.6	2.6	1.9
5. Ends happily-sadly	2.6	1.0	2.2	1.3	2.7	1.0	2.5	1.4	2.1	1.4	2.5	1.1	2.3	1.0	2.5	1.0
6. Interesting-boring	1.7	1.7	2.2	2.5	1.7	1.2	1.5	1.4	1.7	1.4	1.9	1.6	1.5	1.1	1.9	1.2
7. Long-short	2.8	2.9	2.9	3.0	2.1	2.3	3.0	1.5	2.5	1.4	2.8	1.9	2.3	2.5	1.9	2.8
8. For older-for younger	2.7	4.2	2.9	4.3	3.2	3.8	3.0	2.6	3.0	2.8	3.2	3.5	2.8	3.8	2.8	3.6
9. Serious-funny	2.5	2.5	1.9	2.8	2.8	2.0	2.8	3.1	2.6	2.5	2.8	3.0	2.8	3.2	2.6	2.6
10. One you like-don't	1.2	1.4	1.5	2.3	1.5	1.1	1.2	1.4	1.2	1.5	1.2	1.2	1.0	1.1	1.2	1.4

[1] A full analysis of variance for these data is included in supplementary table 12. N for each age = 22.

Supplementary Table 21: Average Ratings of Each Story-Type, Written Grids, Part One[1]

	Cinderella				Favourite				Not Liked				Deep				Easy	
Sample:[2]	9C	13C	13S	17S	9C	13C	13S	17S	9C	13C	13S	17S	9C	13C	13S	17S	9C	13C
Very good	2.3	3.7	2.8	2.7	1.1	1.2	1.0	1.1	4.7	4.7	4.7	3.9	1.2	1.3	1.5	1.2	2.7	1.7
Disturbing	4.7	4.5	4.5	4.7	4.6	3.2	2.8	2.2	3.1	3.4	3.5	3.0	4.1	2.5	2.3	1.8	4.1	3.8
Dull	3.7	2.9	3.2	2.5	4.5	4.7	4.9	5.0	3.6	1.6	1.8	1.8	4.7	4.4	4.0	4.2	3.2	3.7
Works out....	2.7	1.1	1.0	1.2	2.1	3.7	3.4	3.4	3.5	2.9	2.2	2.4	3.1	3.7	3.2	3.1	2.5	2.3
Teaches a lesson	4.2	4.4	4.1	3.4	3.2	2.9	3.3	2.2	4.2	4.7	4.1	3.5	3.4	2.7	2.9	1.6	4.1	3.5
Original	2.8	3.6	3.7	3.6	3.1	1.7	1.4	1.2	2.5	3.7	3.1	2.9	2.4	1.8	2.0	1.5	2.9	3.0
Easy to understand	1.3	1.2	1.0	1.2	2.5	2.6	2.2	2.7	2.3	3.2	3.1	2.7	2.6	2.2	2.7	3.6	1.3	1.3
Could happen to me..	4.7	4.6	4.7	4.7	4.4	3.3	3.5	3.5	4.2	4.5	4.0	3.8	3.9	3.2	4.2	3.2	4.5	3.6
Ends happily	1.1	1.1	1.0	1.2	1.4	2.4	2.2	2.8	2.3	2.4	2.2	3.4	2.2	3.5	2.1	3.3	2.0	1.8
Slow-moving	3.4	3.0	3.7	3.2	3.9	4.0	4.1	4.3	2.8	2.0	2.0	2.0	3.6	3.7	3.7	3.2	3.9	3.5
Full of violence	4.2	4.7	4.9	4.5	3.4	2.8	3.7	3.3	3.9	4.0	3.4	3.0	3.0	2.5	2.7	2.4	4.3	3.8
Well-written	1.5	2.5	2.7	3.0	1.4	1.0	1.1	1.0	3.2	3.1	4.1	3.0	1.5	1.2	1.3	1.2	2.0	1.9
Absorbing	3.6	3.8	4.1	3.5	2.6	1.3	1.2	1.1	3.7	4.5	4.6	4.5	2.6	1.4	1.9	1.8	2.8	2.5
Makes me think	3.3	4.4	4.7	4.2	2.5	1.5	1.9	1.4	4.0	4.3	3.6	3.5	2.1	1.6	1.5	1.4	4.1	2.7
Simple	1.4	1.1	1.2	1.4	2.6	4.1	3.5	3.3	2.2	2.6	3.4	3.3	2.8	4.0	4.0	4.4	1.7	2.2
Serious	3.8	4.5	4.5	4.3	3.1	1.6	2.3	1.5	4.1	3.7	2.7	2.2	2.7	1.5	1.7	1.3	4.7	2.9
One I like	2.3	3.2	3.6	3.2	1.2	1.0	1.0	1.0	4.6	4.9	4.9	4.8	1.4	1.4	1.8	1.3	2.0	1.8
Like real life	3.8	4.5	4.7	4.7	3.9	2.3	2.4	1.8	4.1	4.1	3.7	3.3	2.7	2.5	2.9	2.3	4.3	3.0
Interesting subject	2.7	3.9	3.8	3.4	2.0	1.3	1.3	1.1	3.9	4.4	3.2	3.2	1.7	1.5	1.6	1.2	2.9	2.2
One additional	2.8	3.2	4.1	3.7	2.7	2.3	2.1	2.0	3.1	3.7	3.3	4.0	2.4	2.1	2.9	2.3	2.9	2.8

[1] A full analysis of variance for each set of data is included in supplementary tables 13 and 14.

[2] Samples from the comprehensive school and its drawing area are designated 'C', those from the selective schools, 'S'.

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Supplementary Table 21: Average Ratings of Each Story-Type, Written Grids, Part Two

	Easy		Liked				Hard				Moving				Recently Read			
	13S	17S	9C	13C	13S	17S	9C	13C	13S	17S	9C	13C	13S	17S	9C	13C	13S	17S
Very good	1.4	1.3	1.4	1.0	1.0	1.1	2.1	2.8	2.4	1.7	1.2	1.2	1.0	1.4	1.6	1.6	1.3	1.5
Disturbing	3.7	3.1	4.7	3.7	2.6	2.2	3.8	2.5	2.6	1.6	4.8	2.4	1.8	2.3	4.2	2.7	2.8	2.9
Dull	4.8	4.6	4.9	4.9	4.8	4.9	3.8	3.2	2.7	2.9	4.5	4.6	5.0	4.9	4.3	4.2	4.0	4.2
Works out...	2.6	3.6	2.0	3.4	2.9	3.7	3.1	2.9	2.7	3.5	2.7	3.0	3.4	3.4	2.4	3.6	3.2	2.8
Teaches a lesson	3.7	2.8	4.2	3.5	2.7	2.5	3.5	3.1	3.1	2.7	3.3	3.0	2.9	2.8	3.7	3.1	3.2	2.8
Original	1.9	1.9	2.8	2.0	2.1	1.4	2.5	2.4	2.1	2.3	2.3	1.7	1.6	1.5	2.4	2.2	2.3	1.8
Easy to understand	1.5	1.6	1.8	2.2	2.3	2.4	4.0	4.1	4.5	4.5	2.1	2.2	2.3	1.9	2.0	2.1	2.3	2.5
Could happen to me..	3.8	3.3	3.9	3.9	3.2	2.9	4.0	3.9	4.5	3.5	3.9	3.2	3.5	3.3	4.3	3.5	3.2	3.1
Ends happily	2.4	2.7	1.5	2.4	1.9	3.5	2.1	3.1	2.9	3.5	1.6	2.3	3.6	3.2	1.7	3.1	2.8	3.4
Slow-moving	4.0	4.1	3.4	3.9	4.2	4.1	3.4	2.3	1.8	1.6	3.8	3.5	4.5	4.6	3.5	3.4	3.6	3.3
Full of violence	3.6	3.5	3.9	3.9	3.4	3.2	2.9	3.4	3.0	3.2	3.6	3.5	3.6	2.3	3.4	3.1	3.0	3.6
Well-written	1.5	1.5	1.4	1.1	1.1	1.3	1.9	2.1	1.9	1.4	1.2	1.1	1.4	1.2	1.2	1.3	1.3	1.7
Absorbing	1.9	1.6	2.3	1.5	1.3	1.4	3.2	2.8	3.5	3.0	2.2	1.6	1.4	1.1	2.8	1.8	1.9	2.2
Makes me think	3.3	2.4	2.8	2.1	2.4	1.4	2.6	2.5	2.8	2.0	2.1	1.6	1.9	2.1	2.6	2.0	1.8	2.5
Simple	2.5	2.4	2.3	2.9	3.1	3.6	4.0	4.2	4.4	4.8	2.6	3.4	3.4	3.3	2.2	3.3	3.1	3.5
Serious	3.4	2.5	3.6	2.4	2.2	1.8	2.8	2.1	1.5	1.4	3.1	1.7	1.9	2.0	3.3	2.1	1.8	2.2
One I like	1.1	1.2	1.0	1.2	1.0	1.1	2.1	3.1	3.1	2.2	1.2	1.1	1.2	1.2	1.5	1.5	1.3	1.8
Like real life	3.6	2.9	3.9	3.1	2.4	2.7	3.1	3.2	3.2	2.0	2.8	2.3	2.0	2.3	3.5	2.5	2.0	2.3
Interesting subject	1.8	1.8	1.6	1.5	1.4	1.2	2.3	2.8	2.5	2.0	1.9	1.4	1.1	1.4	1.7	1.5	1.4	1.6
One additional	3.3	2.6	2.4	2.5	2.6	2.5	3.1	2.8	3.4	2.0	2.7	2.6	2.5	2.1	2.3	2.6	2.7	2.7

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Supplementary Table 22: Components One, Two, and Three in Main Study Written Grids

	Number of Grids in Which Each Construct Loads on the Component[1]								Construct with Highest Loading on Each Unclassified Component[2]			
Component label:	Evaluation		Simplicity		Seriousness		Realism					
Sign of loading:	+	-	+	-	+	-	+	-	Sample: 9C	13C	13S	17S
1. Very good	92	0	5	3	1	5	1	3	1	0	0	0
2. Disturbing	49	11	1	19	11	2	10	4	2	1	2	1
3. Dull	0	74	5	14	9	2	2	2	1	0	0	0
4. Works out as expected...	12	34	27	2	2	11	1	11	3	0	3	1
5. Teaches a lesson	48	5	4	9	10	3	5	3	2	1	2	1
6. Original	50	8	6	8	8	1	6	1	7	2	0	0
7. Easy to understand	27	27	44	0	3	13	4	3	1	0	0	0
8. Could happen to me...	34	2	8	5	1	1	29	0	3	2	1	2
9. Ends happily	10	23	36	0	3	12	7	8	0	0	1	0
10. Slow-moving	2	53	5	15	12	1	7	4	4	3	0	2
11. Full of violence	30	10	6	16	9	0	10	5	2	5	2	4
12. Well-written	62	0	4	1	2	1	3	1	1	0	0	0
13. Completely absorbing	78	3	16	2	3	3	5	2	3	0	0	0
14. Makes me think	63	1	1	15	14	0	7	3	0	1	0	0
15. Simple	15	33	49	1	2	12	1	8	0	2	0	1
16. Serious	51	4	1	23	30	0	10	00	0	1	0	0
17. One I like	91	0	11	3	1	5	3	2	0	1	0	0
18. Like real life	51	3	5	10	10	0	30	0	0	0	0	0
19. Interesting subject	74	0	0	5	7	1	5	1	1	1	1	0
20. One additional	52	10	9	11	4	5	2	6	1	1	0	0
Number of grids in which the component appears	95		66		30		35		74			

[1] All loadings equal to at least 20 percent of the average per construct variation are tabled here. This 20 percent point is different in each grid, and is equal to the square root of .01 times the total variation about construct means.

[2] When loadings are tied, both constructs are tabled. A total of 300 components from 100 grids are tabled here.

Supplementary Table 23: Correlations Among Constructs, Oral Grids[1].

Construct:	Correlations at Age 6 Above Diagonal, Age 9 Below									
	1	2	3	4	5	6	7	8	9	10
1. Very good-not	-	135	-019	113	311	319	013	028	-060	833
2. Teaches a lesson-doesn't	084	-	012	095	114	143	214	159	-051	193
3. Really happened-made up	-252	065	-	-023	103	158	010	-037	271	-110
4. Easy to understand-hard	136	-107	-240	-	313	150	-048	-243	-055	054
5. Ends happily-sadly	291	-015	-296	195	-	328	010	-160	041	278
6. Interesting subject-boring	736	066	-168	073	211	-	268	-072	143	313
7. Long-short	157	-023	130	-347	-087	242	-	174	119	-026
8. For older-for younger	-054	050	189	-436	-253	020	365	-	079	033
9. Serious-funny	-114	046	192	-200	-086	-112	078	219	-	-102
10. One you like-don't	806	002	-260	129	308	728	107	-024	-107	-

[1] These correlations are based on ratings of 176 stories on the 10 constructs at each age, ignoring the classification into story-types. The values tabled are 1000 x r_{ij}.

Supplementary Table 24; Correlations Among Constructs, Comprehensive School Grids[1]

Construct:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	Correlations at Age 9 Above Diagonal, Age 13 Below																			
1. Very good	-	-370	-595	123	177	016	-007	092	194	-201	071	531	286	307	-006	277	835	208	514	135
2. Disturbing	070	-	395	-115	-038	058	-174	-017	-250	093	176	-327	-087	-083	-151	-027	-381	057	-197	045
3. Dull	-732	017	-	-108	-039	079	001	-115	-175	186	028	-418	-173	-224	-036	-159	-608	-110	-347	-137
4. Works out as expected...	-179	-290	142	-	-079	064	191	013	214	009	-019	131	038	103	218	-146	195	009	135	017
5. Teaches a lesson.	393	236	-274	-162	-	045	-161	180	-011	040	160	127	050	222	-066	303	120	183	284	-062
6. Original	482	175	-389	-162	437	-	-008	005	023	071	119	141	003	-035	022	054	-004	146	114	-095
7. Easy to understand	121	-238	-054	335	008	071	-	006	210	-030	-191	034	-087	-124	611	-348	041	-034	-096	024
8. Could happen to me...	221	148	-090	-134	356	162	034	-	021	-020	051	049	168	206	046	106	074	319	090	-001
9. Ends happily	-099	-326	010	497	-188	-048	288	-045	-	-129	-259	217	062	042	230	-074	255	020	133	-050
10. Slow-moving	-430	053	392	023	-181	-295	-128	-097	019	-	091	-107	-136	-032	056	-031	-261	-080	-047	-025
11. Full of violence	231	227	-137	-200	256	171	-194	164	-390	-072	-	-090	-136	161	-205	246	025	160	083	-103
12. Well-written	688	065	-594	-164	373	421	169	231	-110	-334	175	-	237	267	031	142	555	113	489	100
13. Completely absorbing	732	134	-580	-194	409	554	117	234	-099	-426	273	654	-	157	-163	108	252	152	229	145
14. Makes me think	589	299	-485	-327	520	444	-060	301	-207	-274	284	557	579	-	-094	360	298	294	322	054
15. Simple	-222	-233	170	291	-210	-193	443	-116	264	038	-283	-151	-224	-343	-	-350	039	-110	-075	-041
16. Serious	449	343	-294	-342	396	382	-193	240	-260	-154	267	356	463	639	-518	-	210	318	276	-037
17. One I like	855	046	-736	-127	382	510	201	215	-044	-488	213	655	693	561	-164	422	-	207	511	102
18. Like real life	406	219	-223	-183	424	442	052	461	-155	-216	180	373	349	482	-160	516	434	-	235	149
19. Interesting subject	719	200	-561	-291	423	457	110	279	-114	-366	246	681	660	661	-279	538	723	484	-	075
20. One additional	245	166	-237	-115	132	087	-058	034	-099	-160	153	234	224	169	-164	128	260	205	212	-

[1] These correlations are based on ratings of 270 stories on the 20 constructs at each age, ignoring the classification into story-types. The values tabled are 1000 x r_{ij}.

Supplementary Table 25: Correlations Among Constructs, Selective School Grids[1]

Construct:	Correlations at Age 13 Above Diagonal, Age 17 Below																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. Very good	-	330	-730	-319	287	396	148	212	-123	-519	055	807	811	392	-046	190	837	380	643	247
2. Disturbing	358	-	-274	-347	296	175	-289	193	-230	-165	335	268	332	451	-313	445	268	351	372	140
3. Dull	-645	-319	-	289	-223	-291	-253	-188	099	568	071	-580	-681	-322	-053	-004	-768	-326	-518	-151
4. Works out as expected...	-263	-366	297	-	-067	-313	140	-189	451	205	-140	-293	-401	-407	211	-219	-348	-302	-368	-209
5. Teaches a lesson	309	452	-330	-160	-	247	-168	113	-065	-029	163	257	240	195	-181	320	258	240	300	188
6. Original	495	403	-526	-318	405	-	-126	037	-198	-116	092	422	451	411	-127	226	381	315	403	189
7. Easy to understand	-140	-565	-061	196	-232	-142	-	029	166	-340	-323	041	153	-279	628	-443	217	-155	016	-026
8. Could happen to me...	234	176	-265	-266	273	178	-053	-	-156	-114	083	135	302	276	031	152	228	493	253	164
9. Ends happily	-154	-542	113	264	-224	-273	392	-126	-	009	-218	-071	-178	-273	191	-276	-120	-197	-188	-130
10. Slow-moving	-352	-046	573	169	-101	-208	-270	-190	048	-	-007	-401	-557	-179	-032	117	-511	-134	-360	-240
11. Full of violence	110	445	-122	-104	228	062	-263	004	-286	-222	-	077	138	264	-336	401	040	137	147	172
12. Well-written	681	359	-583	-214	351	529	-114	212	-120	-238	067	-	702	426	-142	246	716	325	563	226
13. Completely absorbing	719	328	-754	-316	292	437	-023	261	-167	-564	160	577	-	524	-069	192	812	442	666	314
14. Makes me think	476	617	-505	-450	527	507	-383	230	-417	-153	236	483	514	-	-386	484	386	526	407	144
15. Simple	-238	-556	047	387	-157	-177	628	-096	333	-107	-292	-208	-145	-399	-	-435	005	-172	-188	-133
16. Serious	260	557	-203	-373	328	351	-376	275	-433	028	173	358	214	516	-471	-	125	384	286	253
17. One I like	780	255	-814	-283	320	424	018	224	-091	-450	053	644	806	506	-082	206	-	392	659	251
18. Like real life	338	331	-298	-209	168	265	-080	489	-206	-036	-012	373	318	367	-219	446	330	-	484	248
19. Interesting subject	656	457	-616	-319	341	481	-172	309	-275	-357	234	504	659	582	-242	451	686	362	-	275
20. One additional	410	242	-416	-172	400	397	-192	212	-139	-245	036	322	445	350	-146	106	415	185	381	-

[1] These correlations are based on ratings of 180 stories on the 20 constructs at each age, ignoring the classification into story-types. The values tabled are 1000 x r_{ij}.

Supplementary Table 26: Number of Different Titles Selected as Favourite Examples of Various Genres at Each Age[1]

	Oral Grids		Written Grids		
Genre	Age 6 (n=22)	Age 9 (n=22)	Age 11 (n=20)	Age 13 (n=20)	Age 16 (n=20)
Films	15	17	17	18	15
Poems	10	21	16	12	16
Comic books	-	-	15	17	12
Television	18	14	13	12	15
Stories	17	22	19	14	18
Plays	-	-	16	14	14
Songs	19	18	12	19	18
Rhymes	7	14	-	-	-

[1] The maximum number of different titles for each genre is equal to the n at each age.

Supplementary Table 27: Bias and Variability[1]

	Oral Grids		Written Grids				
	Age 6 (n=22)	Age 9 (n=22)	Age 11 (n=20)	Age 13 (n=20)	Age 16 (n=20)	Boys (n=30)	Girls (n=30)
1. Bias	.631	.635	.556	.568	.480	.508	.560
2. Variability	.701	.676	.707	.691	.704	.738	.670

Multivariate Analyses of Variance[2]

Source		df	F-Statistic	Univariate Effects (.05)
Oral Grids:	Age	2;39	0.41	
	Sex	2;39	0.89	
	Interaction	2;39	1.35	
Written Grids:	Age (linear)	2;53	2.82	1
	Age (quadratic)	2;53	0.94	
	Sex	2;53	3.47*	1
	Interaction (linear)	2;53	0.30	
	Interaction (quadratic)	2;53	0.13	

---

[1] For definitions of these measures, cf. appendix III.

[2] A separate analysis including the main study oral grids gives an F(df=2;79) = 5.08** for between grid differences, with both bias and variability showing significant univariate grid effects. AG, SG, and ASG effects are not significant.

Supplementary Table 28: Use of Extreme, Moderate, and Neutral Grades

	Average Percent of Each Grid's Ratings				
	Oral Grids		Written Grids		
Grades	Age 6 (n=22)	Age 9 (n=22)	Age 11 (n=20)	Age 13 (n=20)	Age 16 (n=20)
1. Extreme (1 or 5)	88.4%	82.3%	74.1%	72.0%	63.0%
2. Moderate (2 or 4)	2.8	8.3	6.5	12.2	22.6
3. Neutral (3)	8.7	9.4	19.3	15.7	14.3
	99.9%	100.0%	99.9%	99.9%	99.9%

Multivariate Analyses of Variance

Source		df	F-Statistic	Univariate Effects (.05)
Oral Grids[1]:	Age	2;39	3.61*	2
	Sex	2;39	1.33	
	Interaction	2;39	0.18	
Written Grids[2]:	Age (linear)	4;51	22.08***	1,2
	Age (quadratic)	4;51	1.78	
	Sex	4;51	1.58	
	Interaction (linear)	4;51	1.64	
	Interaction (quadratic)	4;51	0.14	

---

[1] A separate analysis including the main study oral grids gives nsd for grid, AG, SG, or ASG effects. In all of these analyses, the last of the grading categories was omitted from the multivariate calculations to eliminate the linear dependency.

[2] The multivariate analysis was carried out on the full frequency distribution of grades, rather than the recoded scores for which means are tabled (hence the extra degrees of freedom).

Supplementary Table 29: Between-Subject Consistency in Relationships Among Constructs

	Intraclass Correlation Coefficients[1]				
	Oral Grids		Written Grids		
	Age 6 (n=22)	Age 9 (n=22)	Age 11 (n=20)	Age 13 (n=20)	Age 16 (n=20)
All students	.028	.107	.150	.152	.282
Boys only	-.004	.144	.125	.167	.305
Girls only	.029	.076	.172	.135	.285

[1] For the oral grids, these coefficients are based on 55 separate angles for each subject, for the written grids on 210.

Supplementary Table 30: Proportion of Variation in Ratings Accounted for by Components One to Six

	Average Percent of Total Variation in Each				
	Oral Grids		Written Grids		
	Age 6 (n=22)	Age 9 (n=22)	Age 11 (n=20)	Age 13 (n=20)	Age 16 (n=20)
1. First Component	54.6%	54.9%	43.9%	43.7%	46.0%
2. Second Component	26.2	24.9	22.6	25.1	23.0
3. Third Component	12.9	13.0	14.6	14.7	14.0
4. Fourth Component	5.1	5.7	10.1	8.3	8.5
5. Fifth Component	1.3	1.5	5.9	5.2	5.4
6. Sixth Component	-	-	3.0	2.9	3.0
	100.1%	100.0%	100.1%	99.9%	99.9%

Multivariate Analyses of Variation[1]

Source		df	F-Statistic	Univariate Effects (.05)
Oral Grids:	Age	4;37	0.20	-
	Sex	4;37	0.69	-
	Interaction	4;37	1.41	-
Written Grids				
	Age (linear)	5;50	0.97	-
	Age (quadratic)	5;50	1.61	-
	Sex	5;50	2.35	-
	Interaction (linear)	5;50	0.41	-
	Interaction (quadratic)	5;50	2.01	-

[1] The oral grids are restricted to 5 components, the written to 6; in each case the last component is omitted from the multivariate analyses to eliminate the linear dependency.

Supplementary Table 31: Average Ratings of Each Genre, Oral Grids[1]

Construct	Films 6	Films 9	Poems 6	Poems 9	TV 6	TV 9
1. Very good-not	1.2	1.1	1.6	1.4	1.4	1.0
2. Teaches a lesson-doesn't	3.3	3.8	2.9	3.5	3.0	3.6
3. Really happened-made up	4.5	4.4	4.5	4.7	4.0	4.5
4. Easy to understand-hard	2.8	2.1	2.0	2.0	2.2	1.6
5. Ends happily-sadly	3.0	1.4	2.9	3.1	2.0	1.6
6. Interesting subject-boring	2.3	1.0	2.6	2.1	1.7	1.0
7. Long-short	2.8	1.3	4.0	3.4	2.6	3.0
8. For older-for younger	2.9	2.8	3.5	3.4	2.9	3.1
9. Serious-funny	3.3	3.1	3.1	4.2	3.2	3.6
10. One you like-don't	1.5	1.0	1.5	1.5	1.0	1.0
11. Genre preference	2.6	1.3	3.2	3.8	2.5	2.3

Construct	Rhymes 6	Rhymes 9	Stories 6	Stories 9	Songs 6	Songs 9
1. Very good-not	1.7	2.2	1.0	1.0	1.0	1.2
2. Teaches a lesson-doesn't	2.7	4.1	2.4	3.0	3.0	4.5
3. Really happened-made up	4.6	4.2	3.9	4.5	4.4	4.3
4. Easy to understand-hard	2.4	1.5	2.1	2.5	2.1	2.2
5. Ends happily-sadly	2.5	2.6	2.6	1.5	2.2	1.8
6. Interesting subject-boring	3.0	2.0	1.5	1.1	2.0	1.3
7. Long-short	3.9	4.7	2.5	1.3	3.0	2.6
8. For older-for younger	3.5	4.5	3.3	3.3	3.3	2.9
9. Serious-funny	2.7	4.0	2.6	2.5	2.7	2.5
10. One you like-don't	1.7	1.6	1.0	1.0	1.2	1.0
11. Genre preference	4.1	4.5	2.6	2.9	3.0	3.3

[1] A full analysis of variance for these data is included in table 48. N for each age = 22.

Supplementary Table 32: Average Ratings of Each Genre, Written Grids[1]

Genre:	Films			Poems			Comic Books			Television			Stories			Plays			Pop Songs		
Age:	11	13	16	11	13	16	11	13	16	11	13	16	11	13	16	11	13	16	11	13	16
Very good	1.2	1.0	1.1	2.8	2.0	2.1	1.1	1.9	2.6	1.3	1.1	2.0	1.2	1.5	1.4	2.1	2.0	1.9	1.4	1.1	1.4
Disturbing	4.7	4.4	3.3	3.7	3.9	3.7	4.6	4.7	4.8	4.8	4.6	4.0	4.5	4.1	3.6	3.3	3.6	3.6	4.4	4.6	3.1
Dull	4.9	4.9	4.7	3.4	3.5	3.6	5.0	4.4	3.4	4.9	4.9	4.0	4.4	4.2	4.4	3.2	4.0	4.4	4.5	4.6	4.7
Works out...	3.1	2.3	2.9	4.0	3.2	2.9	4.0	2.7	2.3	3.0	2.6	2.3	2.7	2.8	3.3	3.0	2.5	3.0	3.7	3.5	2.7
Teaches a lesson	3.6	3.0	3.2	3.1	3.4	3.7	3.9	3.9	4.2	3.8	3.6	3.7	2.5	3.1	3.6	3.4	3.4	3.0	4.4	4.3	3.3
Original	3.1	2.6	2.1	3.6	2.5	2.2	2.9	1.8	3.5	2.5	1.9	2.8	3.3	1.9	1.9	2.8	2.0	2.7	3.0	2.0	1.9
Easy to understand	2.1	1.8	1.7	2.1	2.0	2.8	1.4	1.3	1.1	1.9	1.7	1.7	2.4	1.9	2.6	3.0	2.3	2.1	2.3	1.4	1.9
Could happen to me...	3.9	3.8	4.2	4.5	3.5	4.3	3.8	3.8	3.0	3.5	3.4	3.6	2.9	2.6	3.6	3.6	4.0	4.2	3.6	3.9	2.9
Ends happily	1.8	2.6	3.0	1.9	3.6	3.6	2.2	2.3	2.1	1.7	1.8	2.7	1.6	2.0	2.6	2.3	3.0	3.8	2.2	2.2	3.5
Slow-moving	4.3	4.4	4.5	3.6	3.0	3.1	4.1	2.8	3.7	4.6	4.4	3.7	3.6	3.8	3.8	2.2	2.3	3.5	4.1	4.2	4.1
Full of violence	3.5	2.4	2.9	4.2	4.1	4.1	3.8	3.6	3.5	3.8	4.1	3.8	3.8	3.5	3.1	3.6	3.1	3.7	4.6	4.4	4.2
Well-written	1.2	1.2	1.5	1.9	1.9	1.7	1.1	1.7	3.2	1.5	1.2	2.2	1.3	1.1	1.3	1.4	1.8	1.9	1.5	1.2	1.7
Absorbing	1.9	1.9	1.1	3.4	3.5	2.7	2.0	2.0	2.7	2.2	2.0	2.0	2.2	2.7	1.5	2.8	2.6	1.9	1.7	2.5	1.6
Makes me think	2.5	2.2	1.9	3.6	2.8	2.9	2.5	3.2	3.3	2.8	2.6	3.4	2.5	2.3	2.2	2.7	3.2	3.1	2.6	3.1	2.7
Simple	4.1	3.2	3.7	2.3	2.6	3.5	2.4	1.8	1.3	3.1	2.3	2.5	2.3	2.8	3.2	3.0	3.2	3.0	3.0	2.5	3.0
Serious	2.9	1.9	2.3	4.3	2.8	2.5	3.9	2.6	3.2	3.8	3.3	2.9	2.8	1.7	2.8	2.6	2.1	2.6	3.4	3.3	2.5
One I like	1.2	1.0	1.1	2.3	2.4	2.6	1.2	1.6	2.4	1.3	1.2	1.9	1.2	1.6	1.3	2.2	2.2	2.1	1.6	1.0	1.3
Like real life	2.9	1.7	3.3	3.9	2.5	3.2	3.5	3.2	3.4	3.0	2.1	3.2	2.8	2.3	2.8	2.9	3.1	3.1	2.9	3.0	2.3
Interesting subject	1.7	1.7	1.3	4.0	3.5	2.7	2.0	2.3	3.2	1.4	1.5	2.3	1.5	1.9	1.6	2.4	2.4	2.2	2.0	1.8	2.2
One additional	1.9	2.3	2.2	2.6	2.9	3.4	2.2	2.8	3.4	2.2	2.5	2.9	2.1	2.7	2.6	3.0	2.5	2.5	2.5	3.1	2.2
Genre preference	2.6	2.2	2.4	4.1	4.0	3.7	2.9	3.1	3.6	2.4	2.4	3.2	3.0	3.2	2.5	3.8	4.0	3.4	2.3	2.2	2.3

[1] A full analysis of variance for these data is included in table 48 (p. 321, above). N for each age = 20.

Supplementary Table 33: Total Product Matrices for Genres, Oral Grids[1]

Genre:	1	2	3	4	5	6
			Age 6			
1. Films	466.9	-79.1	-48.1	-154.4	-108.1	-77.1
2. Poems		359.9	-158.1	162.6	-176.1	-109.1
3. Television			439.9	-188.4	16.9	-62.1
4. Rhymes				404.2	-120.4	-103.4
5. Stories					430.9	-43.1
6. Songs						394.9
			Age 9			
1. Films	359.3	-154.3	38.5	-206.3	21.8	-59.0
2. Poems		431.0	-77.2	83.0	-168.8	-113.7
3. Television			245.7	-114.2	-37.0	-55.8
4. Rhymes				509.0	-168.8	-102.7
5. Stories					369.3	-16.5
6. Songs						347.7

[1] Based on ratings on 11 constructs by each of 22 subjects at each age.

Supplementary Table 34: Total Product Matrices for Genres, Written Grids[1]

Genre:	1	2	3	4	5	6	7
				Age 11			
1. Films	625.2	-238.4	-72.4	-11.9	-61.8	-110.4	-130.4
2. Poems		997.1	-68.9	-237.5	-252.4	-80.9	-118.9
3. Comic books			564.1	-69.5	-52.4	-202.9	-97.9
4. Television serials				615.9	-82.9	-194.5	-19.5
5. Stories					639.2	-32.4	-157.4
6. Plays						904.1	-282.9
7. Pop songs							807.1
				Age 13			
1. Films	705.6	-227.7	-181.9	-55.4	-18.3	-109.9	-112.4
2. Poems		869.0	-109.1	-250.7	-117.6	-23.1	-140.7
3. Comic books			604.7	-99.9	-106.7	-140.3	33.1
4. Television serials				683.6	-142.3	-214.9	79.6
5. Stories					641.9	-77.7	-179.3
6. Plays						840.7	-274.9
7. Pop songs							594.6
				Age 16			
1. Films	647.7	-138.7	-215.9	-172.6	-35.4	-94.6	9.6
2. Poems		858.8	-153.3	-172.0	-177.9	-156.0	-60.9
3. Comic books			936.6	58.8	-251.0	-249.2	-126.0
4. Television serials				755.1	-94.7	-137.9	-236.7
5. Stories					633.4	60.3	-134.6
6. Plays						711.1	-133.7
7. Pop songs							682.4

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[1] Based on ratings on 21 constructs by each of 20 subjects at each age.

Supplementary Table 35: Multivariate Analyses of Variation in Preferences for Various Genres and Media[1]

Source of Variation	df	F-Statistic	Significant Univariate Effects (.05)
Supplementary Study Oral Grids			
Age	5;36	4.38***	films
Sex	5;36	0.57	-
Interaction	5;36	0.46	-
Supplementary Study Written Grids			
Age	12;98	0.98	comics
Sex	6;49	2.94*	films, stories, plays, tv
Interactions	12;98	3.14***	songs, stories, plays, poems
Comprehensive School at Age 13 (Main and Supplementary Studies)			
Measures	12;136	2.11*	songs, poems, comics
Sex	6;68	4.47***	songs, films, stories
Interactions	12;136	0.38	-
School Contrast at Age 13 (Main Study Samples)			
Place	6;86	13.36***	songs, stories, plays, poems, tv, comics
Sex	6;86	2.85**	films, stories
Measures	6;86	0.47	-
PS	6;86	3.56***	songs, plays
PM	6;86	1.60	plays
SM	6;86	0.33	-
PSM	6;86	0.29	-
Selective School Samples			
Age	6;67	5.53***	plays, poems, tv
Sex	6;67	5.84***	songs, stories, plays
Measures	6;67	0.54	-
AS	6;67	1.25	comics, poems
AM	6;67	1.03	-
SM	6;67	0.37	-
ASM	6;67	0.18	-

[1] The data on which these analyses are based are displayed in figure 8, p. 330. The last genre in each set was eliminated from the multivariate analyses to remove the linear dependency in the scores; effects which are not orthogonal because of disproportionate cell sizes are each tested after allowing for all other effects. 'Measures' contrasts the samples drawn for the main study grid, the supplementary study grid, and the open-ended questionnaire.

Supplementary Table 36: Titles Cited by Ten or More Students[1]

Frequency	Title	Frequency	Title
23	The Three Little Pigs	15	Lord of the Flies
22	Lord of the Rings	13	Ba Ba Black Sheep
22	The Lion, the Witch, and the Wardrobe	13	Bedknobs and Broomsticks
		13	Jack and the Beanstalk
22	Escape on Monday	13	Sleeping Beauty
20	Cinderella	11	The Godfather
20	Jack and Jill	11	Gone with the Wind
20	Of Mice and Men	11	The Princess and the Pea
19	The Hobbit	11	Tom and Jerry
18	The Silver Sword	10	Chitty Chitty Bang Bang
18	1984	10	Goldilocks
17	Humpty Dumpty	10	Jane Eyre
16	Walkabout	10	Love Story
16	Snow White	10	Paddington Bear
15	Sons and Lovers		

[1] All samples pooled. Students were asked to nominate a total of 1772 titles. In response, they named 796 specific, different titles and 63 specific, different series (e.g., Batman, Mission Impossible). Another 38 responses gave a general category (e.g., ghost stories) or a collection (e.g., Five Great Tales of Action and Adventure); 7 cited stories by a specific author; 20 responded without indicating a specific title (e.g., 'poems are usually...'); and 22 gave no response.

Supplementary Table 37: Most Frequently Cited Titles, by Age and Genre, Part One

Five Most Frequent Titles at Each Age

Age 6 (154 titles cited by 44 students)

13	Jack and Jill
9	Ba Ba Black Sheep
9	Cinderella
8	Humpty Dumpty
7	Goldilocks

Age 9 (484 titles cited by 104 students)

20	The Three Little Pigs
12	Bedknobs and Broomsticks
12	The Lion, the Witch, and the Wardrobe
12	Sleeping Beauty
11	The Princess and the Pea
11	Snow White

Age 13, Comprehensive School
(440 titles cited by 80 students)

22	Escape on Monday
20	Of Mice and Men
16	The Hobbit
16	Walkabout
8	The Lion, the Witch, and the Wardrobe
8	The Silver Sword
8	Skinhead

Age 13, Selective School
(250 titles cited by 50 students)

8	Love Story
7	Pilgrim's Progress
6	Gone with the Wind
6	Lord of the Rings
5	The Snow Goose

Age 17, Selective School
(250 titles cited by 50 students)

12	Lord of the Rings
9	Sons and Lovers
9	1984
7	Lord of the Flies
6	The Go-Between
6	Hard Times

Supplementary Table 37, Part Two

Most Frequently Cited Titles, Supplementary Study

	On Oral Grids	On Written Grids
Films	Cowboys and Indians (cited by 4)	In the Heat of the Night, A Clockwork Orange (4 each)
Poems	Jack and Jill (7)	The Colonial Boy, Timothy Winters (4 each
Comic books	-	Jackie (7)
Television	Tom and Jerry (6)	Crossroads (7)
Stories	Goldilocks, Snow White, Little Red Riding Hood (3 each)	Escape on Monday (6)
Plays	-	Romeo and Juliet (5)
Songs	Ba Ba Black Sheep (4)	Mama We're All Crazy Now (6)
Rhymes	Jack and Jill (10)	-

Supplementary Table 38: Summary of Instruments, Samples, and Discussions of Results.

	Instruments Used With Each Sample													
School:	Lower Primary		Upper Primary		Comprehensive School					Selective Schools[1]				
Age:	Age 6		Age 9		Age 11	Age 13			Age 16	Age 13		Age 17		
Sample:[3]	A	B	A	B	E	A	B	E	E	A	B	A	B
Sample size:	22	22	31	31[2]	20	30	30	20	20	20	20	20	20
Main Study													
Interview One	■		■										
Interview Two		■		■									
Questionnaire			■			■				■		■	
Oral Grid	■		■										
Written Grid				■			■				■		■
Supplementary Study													
Oral Grid		■		■									
Written Grid					■			■	■				
Background Measures													
Reading Survey					■	■	■	■	■	■	■	■	■
Background Form					■	■	■	■	■	■	■	■	■
Vocabulary Scale	■	■	■	■									
Reading Scale	■	■	■	■									

	Measures Discussed in Each Chapter							
Chapter:	III	IV	V	VI	VII	VIII	IX	X
Children's Stories		●	●	●				
Main Study								
Interview One		●			●	●		
Interview Two		●			●	●		
Questionnaire					●	●		
Oral Grid							●	●
Written Grid							●	●
Supplementary Study								
Oral Grid								●
Written Grid								●
Background Measures								
Reading Survey	●							
Background Form	●							●
Vocabulary Scale	●							
Reading Scale	●							

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[1] Including one boys school and one girls school.

[2] N = 22 for interviews and oral grids, 30 for written measures, with a 21-subject overlap between the oral and written measures.

[3] 'A' and 'B' samples are drawn from the same class groups, 'E' samples from other classes.

APPENDIX II

SCORING CHILDREN'S STORIES

Introduction

The general procedures followed in analysing the stories in the Pitcher and Prelinger (1963) collection of stories told by children have been described in chapter III. The first part of this appendix is a detailed presentation of the specific scoring categories. Listed for each variable are: 1) the full set of subcategories used in scoring, 2) the obtained frequencies or means in the sample of 120 used for the main analyses, 3) any partitions used in all or part of the analyses, 4) measures of consistency for variables which were independently rescored, and 5) any hypotheses which were specified in advance of the scoring. (These hypotheses are stated generally rather than operationally here, and in their positive rather than their null form.) Variables are presented in the order in which they were scored rather than by the subsets in which they were analysed. Subscores and partitions where they are indicated were calculated during the course of computer analysis.

The second part of this appendix outlines the procedure used to test interactions in two-by-two tables in which the entries are proportions of a third variable.

Scoring Categories

1. Number of Words. A simple count of the number of words in the story. Titles are not counted; names (e.g., 'Mrs. Rabbit') and contractions count as single words.

   Mean: 110.5 words, s.d. = 105.4.

   Hypotheses: Older subjects, and girls, will tell longer stories; length will increase as plot-complexity increases.

2. Formal opening. Reflects any stereotyped, formal first line of the story, either in place of or immediately following the title.

   Scored as: 1) no clear formal opening; 2) "Once (upon a time)..." or "One day..."; 3) "There was a...."

   Frequency: 1) 70; 2) 49; 3) 1. Categories 2 and 3 were combined for analysis as 'any formal opening'.

Scoring Consistency: 100 percent agreement between raters.

Hypotheses: Older subjects, and girls, will use more formal openings. Formal openings will be used more consistently with socially disapproved or strong content than with stories with socially acceptable content.

3. Formal Closing. Any stereotyped, formal ending.

Scored as: 1) no formal ending; 2) "(And that's) the end (of the story"; 3) "That's all..."; 4) "...ever after"; 5) any other formal ending (e.g., "and he never did it again").

Frequencies: 1) 98; 2) 10; 3) 6; 4) 3; 5) 3. Categories 2, 3, 4 and 5 were combined for analysis as 'any formal closing'.

Scoring Consistency: 100 percent agreement between raters.

Hypotheses: As with variable 2.

4. Tone. Reflects the 'mood' or 'manner' of the story. Is it overtly funny, sad, serious, or light, or is it an 'adventure story' in which the tone is purely conventional?

Scored as: 1) indeterminate; 2) sad or unhappy; 3) serious 4) exaggerated humour; 5) adventure.

Frequency: 1) 2; 2) 5; 3) 52; 4) 1; 5) 60. Categories 2 and 3 were combined for analysis as 'serious tone'; categories 4 and 5 as 'light tone'; category 1 was treated as missing data.

Scoring Consistency: 44 percent exact agreement, Cramer's V = .194. These poor results are due to differences in the treatment of adventure stories. For the main analysis these were treated as by definition in category 5; the second rater placed them there only as a last resort.

Hypotheses: Older subjects, and girls, will tell stories with a lighter tone; light tone will be used by all subjects to distance stories with strong or socially unacceptable themes.

5. Tense. Verb tense in telling the story, omitting dialogue.

Scored as: 1) all past; 2) mostly past; 3) mostly present; 4) all present; 5) mostly future; 6) all future (or modal); 7) mixed.

Frequency: 1) 78; 2) 19; 3) 5; 4) 8; 5) 0; 6) 1; 7) 9. Categories 1 and 2 were combined for analysis as 'mostly past', and contrasted with the remainder as 'other'.

Hypotheses: Older subjects, and girls, will tell stories in the past tense; past tense will be used by all subjects to distance stories with strong or socially unacceptable themes.

6. Self Included. Whether the teller includes himself as a major or minor character in the story; does not include self as omniscent narrator.

Scored as: 1) no; 2) yes.

Frequency: 1) 107; 2) 13.

Hypotheses: Older subjects, and girls, will be less likely to include themselves in the story; all subjects will be less likely to include themselves in stories with strong themes.

7. Awareness of Audience. Any comments directed to the examiner, e.g., "He shouldn't have done that, should he?"

Scored as: 1) no; 2) yes.

Frequency: 1) 109; 2) 11.

Hypotheses: Older subjects, and girls, will show more awareness of audience.

8. Self as Commentator or Audience. Any comments of the form, "It's a bit like my brother."

Scored as: 1) no; 2) yes.

Frequency: 1) 112; 2) 8.

Hypotheses: Older subjects, and girls, will be more likely to comment on these stories.

9. Dialogue.
Scored as: 1) no use of dialogue; 2) some quotation of the speech of a single character; 3) any exchange between two or more characters.

Frequency: 1) 88; 2) 14; 3) 18. Categories 2 and 3 were combined for most of the analysis as 'any dialogue'.

Hypotheses: Older subjects, and girls, will use more dialogue.

10. Incorporation of Surround. Is the setting in which the child is telling the story brought into it directly by, for example, talking about something the child can see happening as he talks?

Scored as: 1) no; 2) yes.

Frequency: 1) 120; 2) 0.

Hypotheses: Older subjects, and girls, will be less likely to incorporate their immediate surroundings into the story.

11. Number of characters. Count of the number of different characters having a role in the story. Include the teller if involved in the action, and all active animals. Do not include animals that are hunted, shot, etc., unless they are personalized. Groups of people or animals are counted as a single character unless the members perform separately identifiable actions. (These are counted as one character even if numbered, e.g., 'two boys'.)

Mean: 3.7, s.d. = 2.4.

Scoring Consistency: Pearson correlation between scorings = .853.

Hypotheses: As for variable 1.

12. Nature of Characters Other than Self. The division here is between fantasy on the one hand and 'realism' on the other, where fantasy is defined as distance from the world of the child's experience.

Parents, friends, occupational roles (policeman, milkman), animals acting as animals (and not talking) all count as realistic. When the two sets are mixed, e.g., a child and his family besieged by talking lions, score as mixed.

Scored as: 1) largely realistic and near child; 2) approximately equal mix; 3) largely fantasy, far from child's experience.

Frequency: 1) 61; 2) 11; 3) 48. Categories 2 and 3 were combined in some analyses as 'not realistic'.

Scoring Consistency: 60 percent exact agreement; Cramer's V = .476; Pearson r = .600. There was a systematic bias in the rescoring to credit more fantasy than in the main analysis.

Hypothesis: Older subjects will use more fantasy; fantasy will be used by all subjects to distance stories with strong themes.

13. Presence of Named Character from a Children's Story. E.g., Goldilocks, Winnie the Pooh, Santa Claus.

Scored as: 1) no; 2) yes. A list of responses was also kept.

Frequency: 1) 112; 2) 8.

Hypotheses: Older subjects will use more story characters in their stories.

14. Presence of Unnamed Story Characters. Use of character types met only or predominantly in fantasy, e.g., witches, ghosts, cowboys.

Scored as: 1) no; 2) yes. A list of responses was also kept.

Frequency: 1) 107; 2) 13.

Hypotheses: As for variable 13.

15. Presence of Animals Acting as People.
Scored as: 1) no; 2) yes.

Frequencies: 1) 101; 2) 19.

Hypotheses: None.

16. Presence of Animals Acting as Animals.
Scored as: 1) no; 2) yes.

Frequency: 1) 104; 2) 16.

Hypotheses: None.

17. Presence of Animated Objects. E.g., personalized trucks, machines with hands.

Scored as: 1) no; 2) yes.

Frequency: 1) 113; 2) 7.

Hypotheses: None.

18. Nature of Action. The focus here is again on the degree of fantasy in the actions in the story, taking fantasy as representing distance from the world of the child's immediate experience. Who the

characters are is ignored as much as possible: bears eating breakfast around a table would be treated as though they were people. Realism is divided into two sections. The first is for events that are likely within the normal sphere of activity of the child--making parents angry, visiting relatives, cooking breakfast, or getting a new sibling. The second category is for real events in which the child is unlikely to have taken part but which nonetheless would have been presented to him as a 'real' part of the wider world. This would include 'occupations' stories and most about the activities of adult life.

Fantasy is similarly divided into two subcategories. The first is for incidents which begin within the life of the child but are carried beyond the normal limits. Life is exaggerated and the limits of the child's experience pushed or broken, though again the characters can be real or fantasy. Include here fighting, killing, dead children, cowboys and Indians, and so on. The second category is for pure fantasy whose roots in the real world are tenuous. Here we have magic beanstalks, witches, and new worlds. Rather than exaggeration of the real, this is the creation of alternative forms.

Scored as: 1) indeterminate; 2) largely appropriate to child and family; 3) real but distant, unlikely in direct experience; 4) extension of the real beyond normal limits; 5) fantasy world.

Frequency: 1) 0; 2) 36; 3) 6; 4) 55; 5) 23. Categories 1, 2, and 3 were combined in analysis as 'realistic'. For some analyses, categories 4 and 5 were combined as 'not realistic'.

Scoring Consistency: 56 percent exact agreement; V = .357; r = .179. No systematic bias evident.

Hypotheses: Older subjects, and girls, will tell stories with actions further from their every-day world.

19. Number of T-Units. Count of the number of T-units using Hunt's (1965) criteria. Titles and 'the end' were excluded from this count. With embedded dialogue, the first embedded unit is counted with its frame; successive units are separately counted. (E.g., "John said, 'Hello Mary! Let's go to the store,'" is counted as two units.)

Mean: 7.2 units, s.d. = 2.0.

Hypotheses: As for variable 1.

20. Social Status of Actions. This is concerned with the extent to which the story ventures beyond the realm of conventionally acceptable behavior, becoming a way of testing out otherwise proscribed actions. It is scored simply for the presence or absence of socially unacceptable things, whether or not the characters get away with them. The first category is for completely acceptable, day-to-day life, or for smoothly running fantasy worlds that do not challenge convention. Stories in which a character is hurt or sick from external (not humanly controlled) causes fall into the second category. The third category is for conventionally sanctioned modes of violence or disorder--police, cowboys, 'adventure stories' in general, animals eating animals. The fourth category is for deliberate misdeeds, whether successful or not. Include here drawing nasty pictures of Mommy, bathroom problems, and violence that is trying to hurt somebody.

Scored as: 1) acceptable actions raising no moral issues; 2) actions acceptable but character hurt or sick; 3) conventionally sanctioned violence; 4) deliberate evil.

Frequency: 1) 34; 2) 26; 3) 19; 4) 41. Categories 2 and 3 were combined for analysis as 'socially sanctioned'.

Scoring Consistency: 80 percent exact agreement; V = .744; r = .783.

Hypotheses: Acceptable actions raising no moral issues will lead to less distancing in the stories.

21. Formal Title.

Scored as: 1) none present; 2) "(This is) about a (character or characters)"; 3) character list; 4) any other title.

Frequency: 1) 99; 2) 4; 3) 17; 4) 0. Categories 2, 3, and 4 were combined during analysis as 'any title'.

Scoring Consistency: 100 percent exact agreement.

Hypotheses: As for variable 2.

22. Nature of Setting. Like action, setting is scored for a primary division between fantasy and realistic worlds. Realistic settings are divided into those near the child and those further away, of which he is unlikely to have had direct experience. Fantasy is also subdivided, into settings which are an extension of the real world and those which provide alternatives to it. The former would include all stories in which a family setting is transposed to another, distant land--a jungle, forest, or the animal world. The latter would include most adventure-worlds which do not begin from a home life--cowboy stories, castles, and African adventures. Animated objects from the real world are treated as extensions of the real world, as is a mix of animals and real characters. (Animals alone can be a realistic setting.) If the story gives no indication of setting, assume it to be realistic.

Scored as: 1) indeterminate; 2) real, near child; 3) real, distant; 4) extension of real world; 5) fantasy.

Frequency: 1) 0; 2) 62; 3) 17; 4) 16; 5) 25. Categories 2 and 3 were combined during analysis as 'real' to parallel the partition of variable 18; categories 4 and 5 were combined for some analyses as 'not real'.

Scoring Consistency: 60 percent exact agreement; V = .567; r = .623.

Hypotheses: As for variable 12.

23. Activity of Main Characters. This is the extent to which the main characters are primarily active or passive in the story. Do they shape their fate or are they victims of it? The first category is for stories in which there is a clearly active character, whether good or evil. The second is for stories in which there is simply no action, or in which an equal mix of active and passive events seems to occur. The last is for stories in which there is a clearly passive set of characters, abused or fortunate through no virtue or vice of their own.

Scored as: 1) active; 2) neutral or mixed; 3) passive.

Frequency: 1) 80; 2) 19; 3) 21.

Scoring Consistency: 68 percent exact agreement; V = .539; r = .560.

Hypotheses: Older subjects, and girls, will tell stories in which the characters more actively shape their fate.

24. Strength of Theme. This is concerned with the importance of the subject matter being talked about, from the child's point of view. The basic distinction sought is between stories treating matters of real concern, and stories with less inherent threat. The first category is for very strong themes, ones which tread on clearly taboo ground or deal with very real fears. Include here problems of toilet training, physical attacks on parents, the death of a child or a family member, abandonment, and birth myths. The second category similarly deals with strong themes, but ones that are not quite so threatening. Here we find stories of disobedience and being 'naughty', fighting, and knowing transgressions of all kinds. The third category is for weaker themes which still involve some minor threat or fear. This would include tales of over-indulgence--eating or sleeping too much, spanking and chastisement in the world of toys and stuffed animals, and adventure stories in which some 'realistic' elements intrude. The fourth category is for perfectly acceptable, ordinary themes--day to day life, Christmas lists, making friends, and so on, as well as 'themeless' transactional descriptions of all kinds. Finally, a fifth category is used for the dummy run or adventure story with much action but no evident thematic content--cowboys and Indians, hunting, animals fighting; standard story formats in which death and other strong themes occur without their usual overtones. This is a category of ambiguous status: are these thoroughly distanced strong themes, or rote performances with no theme at all?

Scored as: 1) very strong; 2) lighter but still important; 3) mild explorations; 4) weak themes; 5) adventures.

Frequency: 1) 11; 2) 38; 3) 33; 4) 16; 5) 22. Categories 1 and 2 were combined for analysis as 'strong theme'; categories 3 and 4 were combined for analysis as 'weak theme'.

Scoring Consistency: 80 percent exact agreement; V = .643; r = .540.

Hypotheses: As for variable 20.

25. Male's Pet. If there is a boy in the story, what pet does he have?

Scored as: 1) dog; 2) cat; 3) both; 4) other; 9) no boys with pets.

Frequency: 1) 0; 2) 1; 3) 1; 4) 1; 9) 117.

Hypotheses: Dogs will be more frequently associated with boys.

26. Female's Pet. If there is a girl, what pet does she have?

Scored as: 1) dog; 2) cat; 3) both; 4) other; 9) no girls with pets.

Frequency: 1) 3; 2) 2; 3) 1; 4) 2; 5) 112.

Hypotheses: Cats will be more frequently associated with girls.

27. Animals in Story.
Scored as: 1) dog; 2) cat; 3) both; 4) other; 9) none.

Frequency: 1) 8; 2) 9; 3) 5; 4) 0; 9) 98.

Hypotheses: Girls will be more likely to include cats in their stories, boys to include dogs.

28. Pronoun Referents. Are pronoun referents clear?

Scored as: 1) noticeable ambiguities; 2) usually clear.

Frequency: 1) 52; 2) 68.

Hypotheses: In stories using equivalent numbers of characters, older subjects, and girls, will have clearer referents.

29. Time Sequence. Are the events properly sequenced?

Scored as: 1) no order needed (e.g., a Christmas list), or not clear whether order was intended; 2) usually properly ordered, though some evidence of possible confusion may occur; 3) some evidence of clear confusion; 4) considerable, evident confusion.

Frequency: 1) 8; 2) 87; 3) 20; 4) 5. Categories 3 and 4 were combined in analysis as 'some confusion' and contrasted with the combination of 1 and 2 as 'usually clear'.

Hypotheses: In stories using equivalent numbers of incidents, older subjects, and girls, will have clearer time sequence.

30. Climax. This reflects the kind of incidents which bring the story to a close. Is there a climax or simply a trailing off, and if a climax, what sort?

Scored as: 1) no clear ending, action stops without a sense of completion or finality; 2) action stops at the end of a day; 3) action stops with a return home or with going away from the scene of the action; 4) action stops with death of a character; 5) action stops with the solving of a problem (e.g., becoming friends, getting better, receiving a reward); 6) action stops with punishment of a wrong.

Frequency: 1) 75; 2) 9; 3) 12; 4) 8; 5) 13; 6) 3. Categories 2, 3, and 4 were combined for analysis as 'natural climax', 5 and 6 as 'thematic climax'. (This introduces some confounding, since category 4 is sometimes thematic in this sense.)

Scoring Consistency: 60 percent exact agreement; V = .599. Rater 2 was less stringent in crediting a problem as 'solved' then was the main analysis.

Hypotheses: Older subjects, and girls, will be more likely to use some form of climax.

31. Causal Links. This is concerned with the extent to which the events in a story are causally linked, and with the way in which such links are indicated. The major distinction is between simple juxtaposition of events which we can read as causally related, and clear statement that one has led to as well as been followed by another.

Scored as: 1) no clear links expressed or implied; 2) some links evident, though as a whole loosely structured; 3) evident structure expressed through juxtaposition; 4) clearly expressed structure.

Frequency: 1) 37; 2) 38; 3) 33; 4) 12. Categories 3 and 4 were combined for most analyses as 'clear links'.

Scoring Consistency: 40 percent exact agreement; V = .308; r = .327. No systematic bias between raters was evident.

Hypotheses: Older subjects, and girls, would show more structuring.

32. Plot Structure. This attempts to summarize the underlying structure of the plot as a whole. Are the events linked successively, or related to some over-arching conception? Do they lead into each other or are they collected around a common core? And so on. The starting point is Vygotsky's (1962) discussion of concept development, but his categories are modified and adapted as need be to meet the peculiar requirements of story analysis. The first category is for stories which have no organization at all, being made up of images that occur more or less randomly to the child. The form of the story is 'A, B, C, D', with no perceivable relationship among the elements. The second category is for stories which are similarly structureless, but exhibit some (subjective) basis for the elements included. Instead of free association, the elements are chosen for their congruity in space and time, as perceived by the child. The form of these is closer to 'X sees A, B, C, D'.

The third stage is one of sequences which have little structure beyond sharing a common character or action. The form is essentially 'A followed by B followed by C followed by D'. The fourth category is for stories with a concrete focus in a character or incident. The mark of these stories is that we, as audience, can perceive a 'topic' out of which the various elements in the story evolve. This is parallel to Vygotsky's collection complex; here the elements are collected around a concrete core. There need not be a successful narrative sequence, and there will not be an overall pattern leading to a climax. (If it had these, the story would be in category 7.)

The fifth category is for stories which are built up out of incidents clearly linked together, one leading to the next, but which lack an overall unity: characters change, actions develop in new directions, setting shifts until the end of the story bears no relationship to the beginning. The sixth category is similar to the fifth, but overall control is reestablished by maintaining at least one character constant throughout the sequence. (Occasionally, a type of action or a setting may be held constant instead.) This is the form of the 'continuing adventures of' story. The seventh category is the first of the true 'narrative' forms. Here there is a consistent focus or topic throughout, a single character or set of characters, and a climax or end-point which the rest of the story is building toward. (The child may not have control of all of these elements and the narrative may 'fail', but it will still be scored here.) The eighth category is for complex chain narratives, in which two or more separate narratives are chained together by a linking character. The ninth category is for complex narratives, with two or more separate narratives not only chained together, but with a central focus or point as well.

Scored as: 1) trial and error heaps (free association); 2) subjectively organized heaps; 3) sequences; 4) primitive narratives; 5) unfocussed chain; 6) focussed chain; 7) simple narrative; 8) complex chain narrative; 9) complex narrative.

Frequency: 1) 1; 2) 9; 3) 27; 4) 17; 5) 10; 6) 48; 7) 5; 8) 2; 9) 1. Categories 1 and 2 were combined for analysis as 'heaps'; categories 7, 8, and 9 were combined as 'narratives'. For some analyses this variable was dichotomized at the median into simple and complex plot structures.

Scoring Consistency: This variable was more difficult to score than the others in the set, and some training was done. In particular, the underlying view of concept development as outlined in chapter V was presented and discussed using Vygotsky's (1962) examples together with examples of the various plot forms. Scoring then proceeded as with the other variables. 44 percent exact agreement, V = .523; r = .574.

33. Number of Incidents. A rough measure of the number of different 'incidents' or 'events' that take place in the story, taking each incident as being a series of related actions occurring at the same point in space and time. Titles of the form, "This is about a..." are not counted as separate incidents, but in other cases the introduction of new characters usually marks a new incident.

Mean: 4.7 incidents, s.d. = 3.5.

Scoring Consistency: r = .797.

Hypotheses: As for variable 1.

Variables 34 to 38 are concerned with the kinds of attributes which are used to structure the story as a whole. Each was scored as 1) none clear, or 2) present. To be counted the attribute had to be evident at both the beginning and end of the story; it was not enough for it to be used for part of the story and then abandoned.

34. Unity of Characters. Is at least one character maintained throughout the story, whether or not his is the central role?

Frequency: 1) 15; 2) 105.

Scoring Consistency: 96 percent exact agreement; V = .846.

Hypotheses: None.

35. Unity of Action. Is some type of action or behavior (e.g., killing, bashing, eating) maintained through the successive incidents?

Frequency: 1) 67; 2) 53.

Scoring Consistency: 68 percent exact agreement; V = .315. Rater 2 scored this more leniently than in the main analysis.

Hypotheses: Older children, and girls, will tell fewer stories using this unity.

36. Unity of Incident. Is the story limited to a single major incident to which all of the actions are related? (E.g., lost dog, car crash, spanking for a particular misdeed.)

Frequency: 1) 98; 2) 22.

Scoring Consistency: 60 percent exact agreement; V = .387. Rater 2 credited this more leniently than in the main analysis.

Hypotheses: Older subjects, and girls, will make less use of this.

37. Unity of Setting. Is the setting maintained consistently in one place throughout? (Credit if the setting is unspecified as long as there is not a shift in setting during the course of the story.)

Frequency: 1) 67; 2) 53.

Scoring Consistency: 76 percent exact agreement; V = .584.

Hypotheses: As for variable 36.

38. Unity of Theme. Is there an over-arching idea that holds the story together, a moral or point that directs and underlies what happens? Do not credit the kind of 'concrete' core that underlies the primitive narratives in variable 32.

Frequency: 1) 115; 2) 5.

Scoring Consistency: This is a very low frequency variable; both raters agreed in rating it not present in all of the stories in the analysis of consistency.

Hypotheses: Older subjects, and girls, will make more use of this.

Scores Computed During the Analysis of Data

39. Stock Characters. From variables 13 and 14, to indicate any use of named or unnamed characters from stories.

Scored as: 1) none; 2) any.

Frequency: 1) 101; 2) 19

Hypotheses: As for variables 13 and 14.

40. Use of Fantasy. Variables 12, 18, and 22 were separately recoded as three-point scales and then summed to give a new score ranging from 0 for all three realistic to 6 for all three fantasy.

Mean: 2.3, sd. = 2.0. For some analyses, this variable was dichotomized at its median into 'high' and 'low' fantasy, with frequencies of 73 and 47, respectively.

Hypotheses: Older subjects, and girls, will use more fantasy in distancing their stories. (This variable was not used to test distancing with changes in the degree of threat because its component score for action is confounded.)

41. Formal Beginning. Variables 2 and 21 were pooled for any sort of formal story-marker at the beginning of the story.

Scored as: 1) none; 2) any.

Frequency: 1) 49; 2) 71.

Hypotheses: As for variables 2 and 21.

42. Use of Formal Story-Markers. Variables 41, 3, and 5 were recoded on two-point scales and summed to give a new score ranging from 0 for no formal marking to 3 for marking on all 3.

Hypotheses: Older subjects, and girls, will use more formal markers of the story-mode.

43. Any Awareness of Audience. Computed from variables 7 and 8.

Scored as: 1) no awareness; 2) any awareness.

Frequency: 1) 103; 2) 17.

Hypotheses: As for variables 7 and 8.

44. Words Per T-Unit. Variable 1 divided by variable 19.

Mean: 7.2, s.d. = 2.0.

Hypotheses: As for variable 1.

Testing Interactions

For a number of the analyses involving the children's stories, it was necessary to test for interactions in two-by-two tables in which the entries are proportions of a third variable. If the proportions in the four cells are p_{11}, p_{12}, p_{21}, and p_{22}, the problem is to test whether $((p_{11}-p_{12})-(p_{21}-p_{22}))$ departs significantly from zero. The variance of a proportion is dependent upon the true population value of each p_{ij}, which is unknown. However, the variance of $\arcsin\sqrt{p_{ij}}$ is dependent only on the sample value of the n_{ij} on which the proportion is based. In particular, if $\arcsin\sqrt{p_{ij}}$ is taken in degrees, the variance will be approximately $821/n_{ij}$. The variance of the differences for testing the interaction will be the summation over i and j of $821/n_{ij}$. To test the null hypothesis that there is no interaction, we compute

$$Z = (\arcsin\sqrt{p_{11}} + \arcsin\sqrt{p_{22}} - \arcsin\sqrt{p_{12}} - \arcsin\sqrt{p_{21}})/(\sqrt{\sum_{ij} 821/n_{ij}}),$$

and compare it against the standard normal distribution. The test can be improved (and was here) by compensating for the ceiling effect on $\arcsin\sqrt{p_{ij}}$ for $p_{ij} = 0$ or 1, by substituting $\arcsin\sqrt{1/(4n)}$ when $p = 0$, and $(90 - \arcsin\sqrt{1/(4n)})$ when $p = 1$. Owen (1962) has tabled these values for different n's; his figures are in radians and represent twice the value of the simple arcsin transformation, however. Snedecor and Cochran (1967) discuss this test of interactions and table values of arcsin in degrees; Langer and Abelson (1972) have recently discussed it in the psychological literature, though their calculations are in radians.

APPENDIX III

DESIGN AND ANALYSIS OF SPECIFIC INSTRUMENTS

Introduction

This appendix describes problems of design and analysis that were specific to individual instruments or sets of instruments. Procedures during administration, scoring, and data analysis are discussed. For many of the questions, the focus was on interpreting obtained results from a developmental perspective, rather than on hypothesis testing.

Interviews One and Two, and the Reading Questionnaire

Two interview schedules (instruments I1 and I2, appendix IV), each taking approximately 30 minutes, were used with six and nine year olds; the reading questionnaire (I3) was to some extent a parallel instrument used with nine, thirteen, and seventeen year olds. Interviews were all tape-recorded, using a portable cassette recorder. A separate copy of the interview schedule was used with each child, allowing notes to be taken on each answer to protect against loss of the tape, as well as to record any details not likely to emerge on the taped record (e.g., distractibility). The right-hand columns of the schedule were reserved for coding the data for computer analysis.

The reading questionnaire was printed on a single sheet of paper, one copy of which was distributed to each student together with 3 sheets of wide-ruled 8 x 10 inch white paper on which all answers were written. It took about 40 minutes to complete, though this varied considerably from individual to individual. Scores from this measure were separately coded on 80-column sheets.

The interviews began informally, with an explanation that we wanted to find out which stories boys and girls liked, questions about age, size of family, and exposure to stories. (These were separately checked through school records, and were used here simply as an introduction to the main part of the interview.) The remaining questions were organized around various topics of interest, each with its own series of specific questions. These questions (included in full in the schedules in appendix IV) provided the framework for the interviews, though they were not rigidly standardized. Each phase of the interview began as indicated on the schedules, but each answer was explored until it seemed certain both that the child had understood the question and that the examiner had understood the response. Rapport was essential, and was maintained with standard interviewing techniques. If frustration seemed imminent, leading questions were sometimes used; such 'led' responses were not counted in scoring the interviews. Scoring was done directly from the tapes without transcription; full enough notes were made on each child's interview schedule to allow it to be used later as a tape-index in making transcriptions of examples for discussion.

The areas chosen for investigation emerged from the general literature on child development, especially from Piaget's (1929) work on the child's conception of the world. The particular questions were selected after preliminary work with a vertically grouped class of five, six, and seven year olds in Southeast London in the spring of 1972, during which many alternative formulations and modes of approach were tried out. An informal discussion of this work has been given elsewhere (Applebee, 1973).

The written questionnaire was designed to provide further information on questions which remain relevant at the older ages, as well as to gather data on areas that are of interest only with the older students. Here previous investigations of literary response were of more importance than in the interviews; these have been summarized in Squire (1969), Purves and Beech (1972), and D'Arcy (1973). A preliminary version of the questionnaire was used with one class each of eleven, fourteen, and fifteen year olds during the spring of 1972; though these came from the comprehensive school used in the main study, none of the students participated in both phases of the work. Questions were revised as a result of this work to eliminate or reformulate questions which emerged as ambiguous, repetitive, or uninformative.

All scoring and analysis of data was done by the investigator, with independent checks on scoring consistency and category definitions. The interviews were scored directly from the tapes throughout the testing period; interviews from the two age and the two sex groupings were interspersed, but the source of each interview was known at the time of coding.

Coding of the written responses was done without knowledge of the age of the students, though because of the time-scheduling in the study as a whole the comprehensive and selective school samples were scored separately. Scoring categories were defined in advance and expanded (with full rescoring) when interesting differences among responses seemed to be obscured; empty or low frequency categories were combined during the course of statistical analysis.

The various series of questions incorporated in these three instruments are discussed below. This includes a description of the focus of each series, a list of the specific questions related to it (keyed to the instruments in appendix IV), any special problems in the analysis, and hypotheses that were specified in advance. Because of the overlapping nature of the questions and hypotheses, these are not repeated in detail but only in a general form. Details of specific scores recorded have been included at the relevant points in the main text.

Series 1 (Questions 2.4 [i.e., interview 2, question 4], 2.5, 2.6, 2.8, 2.9, 2.12.) This is concerned with the origins and nature of a story--where stories come from, what happens in them, and whether the events and characters are real or imaginary. In addition to scores based on each question, at the end of the interview each child was given a global rating of the extent to which he treated stories as essentially fictional; this was done before the specific questions were scored. Hypotheses were: That the nine year olds will have a firmer sense that stories and their characters are usually fictional rather than real; that the older subjects will be more likely to recognize that stories are 'made up', the products of men.

Series 2 (Questions 1.3, 1.12, 1.13, 2.5) This investigated knowledge of conventional forms for stories and their characters. Hypotheses were: That boys in stories will be expected to have a dog for a pet, girls to have a cat; that subjects whose own pets reverse the pattern will show the same expectation but to a lesser extent; that older subjects will show a firmer knowledge of common story-roles than will younger subjects; and that older subjects will have a better sense of what stories are about and be better able to specify appropriate and inappropriate things to tell stories about.

Series 3 (Questions 1.7, 1.8, 1.9) This explored the extent to which subjects have begun to differentiate among spectator-role genres, in this case the genres of story, poem, and rhyme. It offers a partial parallel to questions approached through grid 4 (discussed below). Hypotheses were: That nine year olds will use more distinct constructs in distinguishing among the genres.

Series 4 (Question 2.10) This explored the process of retelling unfamiliar stories, in this case a fable-in-verse, "The Blind Men and the Elephant" (appendix IV). This was read to each subject, a series of questions was asked about it, and then the child was asked to tell it back to the interviewer. The responses were scored both for overall competence in recall and for those formal structural features (tense, title, etc.) used in scoring the stories from younger children (cf. appendix II). In scoring for recall of details, 52 points were specified, each of which received 1 point if it were mentioned in the retelling; these are summarized in supplementary table 7, appendix I. The fable and its mode of presentation were deliberately chosen to challenge the children, in order to highlight the processes involved in retelling by examining them under conditions of stress; in many cases, however, the difficulty was more extreme than intended, forcing an abandonment of some comparisons initially intended and requiring much care during the interview itself to prevent total frustration and loss of cooperation. Hypotheses were: That the nine year olds will understand the story better and be better able to repeat it back; that subjects at all ages in retelling the story will give evidence of having assimilated it to the world they known, but that this will be more evident at six than at nine as a result of the overall increase in competence.

Series 5 (Questions 1.5, 1.6, 1.10, 1.11, 2.11, 3.2, 3.3, 3.7, 3.8, 3.9) This was concerned with constructs used in judging stories, with emphasis on constructs related to liking and disliking. In the interviews, specific stories which the child had said he liked or did not like were used to focus the discussion; on the questionnaire students were asked to respond more generally. Responses were analysed in terms of both the number of different constructs (treating the two poles as representing one construct) children gave, and the 'types' or 'levels' of response represented. As discussed in chapter VIII, this latter analysis began using the Purves-Rippere (1968) system of classifying responses, but this was abandoned part way through and a new system formulated. Hypotheses were: That older students will show greater differentiation within their construct system, as evidenced by the number of reasons for liking and disliking which they are able to give; older students will show more separation of personal ~~and~~ public systems of evaluation, by giving separate titles for 'favourite' and 'best' stories; that the emergent (positive) pole of their constructs will be more fully elaborated than the submergent (negative) pole at all ages.

Series 6 (Questions 1.10, 2.9, 3.5, 3.6) This was concerned with levels of discussing stories. Open-ended questions asking simply that the students 'tell about' or 'write about' stories were used after the preliminary study had shown that more structured questions (giving possible points to discuss) were often taken as outlines to be answered point-by-point.

Discussions of a favourite story (in the interviews) and of a story which each student knows well (in the written responses) were divided into T-units (Hunt, 1965) and scored using the Purves-Rippere coding system. As with all scores from the interviews, this analysis was done directly from the tapes, not from transcriptions. A comparison of coding from 11 discussions that were fully transcribed with coding of the same discussions from the tapes indicated that scoring from the tapes underestimates the number of words by 3 percent and overestimates the number of T-units by 4 percent. This was consistent across age and sex groups and does not affect the direction or statistical significance of reported differences, though it obviously affects the averages reported.

Scoring consistency in using the Purves-Rippere system was computed by taking a sample of 100 T-units (1 selected randomly from each of the essays) and having them separately recoded by an independent examiner. This yielded 63 percent exact agreement in coding the 139 elements, 76 percent in coding the 24 subcategories, and 81 percent in coding the 5 main categories. These are within the range of agreement between pairs reported by Purves and Rippere (1968) for some of their own studies.

After the initial analyses had been completed and the data analysed, the reanalyses reported in chapter VII were undertaken. For these, categories were defined on the basis of problems and suggestions that had been noted during the initial scoring. The full set of essays was then rescored in random order, with information on the age and class of each student removed.

Hypotheses were: That when responses were coded into Purves-Rippere categories, the patterns exhibited by different age groups would differ significantly from one another; that the change with age would involve a shift from 'perception' subcategories and elements toward 'interpretation' subcategories and elements; that these trends would be heightened when responses marked by subjects as 'most important' were analysed seperately.

Series 7 (Questions 1.13, 2.14, and 3.12) This carried the analysis of modes of response further by looking at ways of interpreting a set of common sayings. Scoring categories defined in advance were 'literal' and 'generalized' interpretations, but in the process of scoring it became evident that the latter had two distinct subcategories: one consisted of concrete exemplifications of the meaning, the other sought some generalized formulation that would encompass all of the specific situations. All of the responses were rescored using this extended scoring system. Hypotheses were: That older subjects will be better able to explain the meaning of common sayings than will younger ones.

Series 8 (Question 3.10) This was concerned with the extent to which older students valued 'realistic' rather than 'imaginative' stories; it stems from previous findings that adolescents often reject 'fantasy' material, but involved no specific prior hypotheses.

Background Information

This instrument (A1 in appendix IV) was used with all secondary school students to provide background information on age, socioeconomic status, and interest in reading. During the preliminary studies early versions of these questions were included as part of the main instruments. This significantly increased the length of those instruments, however, and the background questions themselves were frequently skipped over. During the main studies, the background sheet was given to all students during the last 10 minutes of the class (earlier to students who finished the other measures sooner) and the response was consistently good. By keeping this information separate until after the main instruments had been scored, it was possible to do the scoring without knowledge of the age of the students involved.

Reading Survey

This slip (instrument A2, appendix IV) was given out to all secondary school students by their teachers, anywhere from 1 week ~~to 1~~ day in advance of the session. It asked for the titles of 8 different stories, corresponding to the 8 story-types used on the main study written grid. This was introduced after the preliminary study had indicated that choosing these stories (not in themselves of major interest in this investigation) was itself a time-consuming task. During the final study, students were asked to fill out the slips and bring them to the testing session to give more incentive to thinking about them; in fact the instrument was designed simply to make the testing session go more smoothly and did not yield any data for analysis on its own.

Repertory Grids

Two orally administered repertory grids were used during the course of interviews with six and nine year olds, and two written grids were used with various samples of children between nine and seventeen. Grids G1 and G2 (appendix IV) were used for the main study of responses to stories; grids G3 and G4 were used for the supplementary study of responses to other spectator-role genres and media.

The orally administered grids took from 10 to 20 minutes to complete; children receiving interview schedule one received the main study grids, those receiving schedule two, the supplementary study grids. Responses were scored during testing and later checked from the tape recordings. During the preliminary study, coding was on a 3-point scale, but this was expanded to 5 points during the final studies, with the moderate scale-points ('2' and '4') being used to indicate responses that were qualified (e.g., "It's sort of good") or hesitant. For the written grids, 5-point scales were used during both the preliminary and final studies.

During the preliminary study, an attempt was made to elicit both constructs and story-titles from the children interviewed. Neither attempt was successful: the youngest children had great difficulty in understanding the request to tell how two stories are alike or different, and also had trouble suggesting stories to fit the various categories. In the final studies, stories were elicited instead from each class teacher, and constructs were supplied as in the written grids. The preliminary studies did indicate, however, that even the youngest children were able to list examples of different genres (e.g., of films, rhymes, stories), and the title-elicitation procedure was maintained for the supplementary study grids.

A preliminary version of the written grids was constructed on the basis of Carver's (1967) study of response to films by samples of apprentices, pre-university students, and professional critics; this was modified to be appropriate in the study of stories and administered to the same samples used for preliminary versions of the open-ended questionnaires. On the basis of those results, the wording of some of the constructs was changed to bring them nearer to the idiom of the students being studied; some were dropped to reduce the redundancy of the list; and others were added after appearing frequently either in the list of constructs suggested as additions or in responses to items on the open-ended questionnaires. A shorter list of 10 constructs was compiled for use on the orally administered grids; this was designed to overlap to some extent that used on the written grids, but again with modifications to make it more appropriate for the younger children.

For the supplementary study, a twenty-first construct (eleventh on the oral grids) was constructed on the basis of the preference-orderings for the various genres and media. These were gathered on the background information sheet for secondary school students, and at a different point in the interview for six and nine year olds. They were transferred to the grids in the process of preparing them for key-punching. The ranking of the 7 genres for the written grids was transformed to a

5-point scale by collapsing the middle 3 ranks into 1 and recoding from 1 to 5, so that the scores would be compatible with those for the other constructs; similarly, the 2 middle ranks were collapsed for the 7 genres on the oral grids. This extra construct was labelled 'genre preference' and treated like the rest of the set for the remainder of the analysis.

During the preliminary study, the process of eliciting the titles for rating in the grids proved extremely time-consuming. As a result, for the final studies the 'reading ~~survey~~' described above was distributed in advance of the testing session. This was very successful, serving both to generate interest in the study (students found they rarely agreed about how to categorize a story and sometimes argued at length about it) and to speed up the administration of the grid. Subjects were not required to use the same titles for the grid, however, if they preferred to change.

In both the interviews and the class testing with the written measures, it was emphasized that 'stories' could be narratives of any length; no distinction between novels and short stories, for example, was intended, and lists of titles that resulted suggest that none arose. (Cf. supplementary tables 36 and 37, appendix I.)

For the written grids in the supplementary study, the preliminary version asked for ratings of each genre 'in general'. This provoked considerable resistance from a few members of each of the 3 classes tested; many of the students ended up picking a specific title and responding to it anyhow. In the final version of the supplementary study questionnaire, the request for answers to each genre 'in general' was replaced by the request for responses to each child's favourite example of each genre; this insured that the selections for the various genres would at least be systematic, though it obviously changes the nature of the resulting data.

Main study grids were administered to alternating members of the same classes that received the open-ended questionnaire; supplementary study grids were administered to all members of the supplementary study samples described in chapter III. (The samples in the main and supplementary studies, as well as the various instruments given to each sample, are outlined briefly in supplementary table 38 as well.) Both measures took between 30 minutes and an hour to complete, with a wide range of individual difference in response time. Nine year olds receiving the main study measures were tested in groups of 5, with a preliminary session in which titles for the various story-types were discussed. (This replaced the preliminary 'reading survey', which the nine year olds were not asked to complete.) With all students, brief explanations were given for constructs which presented vocabulary difficulties. The most frequent explanations were: 'moving' as an 'exciting story'; 'disturbing' as 'upsetting'; 'original' as 'different from the others you know'; 'slow-moving' as 'not much action'; 'full of violence' as 'fighting'; and 'completely absorbing' as 'the kind of story where you want to keep going till it's finished'. All of these caused considerable difficulty at nine but very little in the older samples.

The procedure itself, of using the 5-point scale to record reactions to specific stories on specific constructs, all arranged in a large grid, caused initial difficulty for a minority of students at all ages. In each case, however, a brief stretch of talking the student through his ratings of Cinderella and recording them for him led to essentially a 'eureka' reaction after which there was no longer any difficulty. All of the students at all ages were able to master the mechanics of the grid format, though some complained that it was too long and too repetitive. To avoid confusion about which story was being rated at any given time, students were encouraged to do all of the ratings for one story before beginning to rate the next.

The written grids for both the main and supplementary studies included a section asking students to supply the opposite poles to the

19 constructs which they had been asked to use in rating each title. A similar procedure was used by Carver (1967); here it provided a check on the meaningfulness of constructs at different ages, as well as on systematic age-changes in the meaning of certain constructs.

On the main study written grids, subjects were asked which 2 constructs had seemed most important, and which 2 least important, "when thinking about a story." They were also asked which story they had remembered best and which least in completing the grid. Finally, they were asked which story "most deserves to win a prize as the 'best' story," for comparison with responses from subjects completing the open-ended questionnaire.

Analysis of Data

Opposite poles for each construct, stories remembered best and least, most and least important constructs, constructs added, and favourite and best stories were tabulated by hand for each age and sex group. Both the oral and written forms of the grids were structured so that data for computer analysis of the ratings could be punched directly from the initial results, without any need for further recoding. For the oral grids the scoring form, and for the written grids the second page of each questionnaire, served as the data sheet for key-punching. Data were checked before punching to insure legibility and completeness; a few grids at each age had to be retranscribed.

The major part of the data analysis for all of the grids was carried out by the Medical Research Council's grid analysis service, under the direction of Dr. Patrick Slater. To him and to S. Jane Tutton, who did most of the data processing involved, the present investigator is very grateful. The analysis began with Slater's INGRID program for individual grids. This computes means and variation for each construct and each element, together with measures of bias and variability, distances between elements, correlations and angular distances between constructs, frequencies for the various grading-scale points, and a principal components analysis for each subject. In the preliminary study scores were normalized before the components analyses were undertaken, but in the final studies the analyses were carried through on the raw scores in order to preserve differences in the variability of the constructs. A selection of scores from these analyses of individual grids were punched as well as printed, so that results for age and sex groups could be compiled by the present investigator. These have been reported in chapters IX and X.

Of the scores from INGRID, two need some further comment. Bias ranges from 0 when elements are balanced about the midpoint of each construct, to 1 when all elements are collected at one pole of each construct. It is equal to the square root of $(4VM/(k^2n))$, where k = range on the grading scale, VM = variance of the construct means about the midpoint of the scale, and n = the number of constructs. Variability is simply the ratio of observed variation to the maximum possible variation, again with a range from 0 (no variation at all) to 1 (maximum). It is equal to the square root of $(4V/(n(m-1)k^2)$, where k and n are as above, m = number of elements, and V = variation about construct means (i.e., sums of squares). As such, variability is a simple linear transformation of within grid total variation, and also of the expected distance between elements; if grids are of the same size and use the same grading scale, however, they can be compared without the adjustments that the measure of variability incorporates.

Other aspects of INGRID are described by Slater (1965, 1972b).

The grids from each age and sex group were then analysed using COIN (Slater, 1972a), which computes angular distances and correlations between constructs in each grid, and from them an intraclass correlation coefficient measuring the amount of agreement between grids. The angular distances between constructs for each subject were also punched by this program for use in later analyses.

Slater's SERIES program was used on each of the age groups to compute means for each construct on each element, as well as for a breakdown of variation due to elements, subjects, and subject by element interactions. This variation was accumulated across constructs to provide a breakdown of the total variation about construct means, and was also used to compute intraclass correlation coefficients for ratings on each construct. (For formulae for the intraclass correlation, cf. Snedecor and Cochran, 1967.) For the supplementary study grids only, SERIES was also used to calculate covariances and accompanying standard errors for comparing elements on the same construct, and constructs on the same element, for each age group.

For the main study grids, Slater's ADELA program was used for a principal components analysis in which each element was treated as a separate observation, producing (for the written grids) matrices of 20 constructs by 9 x n elements, where n = number of subjects. For the supplementary study, PREFAN was used to provide a similar analysis of matrices consisting of 7 elements and 21 x n constructs. In all cases, separate principal components analyses were also carried out on the mean, or consensus, ratings for each age group.

Conservative Tests in Analysis of Variance

Analysis of variance was used to test the significance of age, sex, construct, and element effects in the various grids. This is essentially a repeated measures design, with grids nested within age and sex. It is highly unlikely, however, that the t(t-1) 'between trials' correlations for the t ratings all estimate the same population parameter, or that the t variances are equal; the analyses of structuring in the grids were in fact carried out with the assumption that they would not be equal. This violates assumptions underlying the normal tests of significance, but Box has shown that when variances and covariances are unequal, an F-ratio calculated in the usual way will be distributed approximately as F, with degrees of freedom reduced by a function of ε.

The maximum value of ϵ is 1, which occurs when the t variances are equal and the t(t-1) correlations are equal; then the degrees of freedom are unchanged. The minimum value of $\epsilon = 1/(t-1)$; if we multiply the degrees of freedom for F by 1/(t-1), we get a maximum reduction in degrees of freedom and a conservative F-test. The exact probability level for a given problem will lie somewhere between that from the reduced degrees of freedom of the conservative test, and the full degrees of freedom of the ordinary test. In the grids, the value of t (and the corresponding value of ϵ) varies from effect to effect; it will be equal to the number of constructs, of elements, or of elements x constructs, depending upon which are involved in the particular effect being considered.

The conservative test is discussed further in Winer (1962) and in Edwards (1967).

Hypotheses

The primary concern in the repertory grids was with developmental changes in the structure and organization of the construct system as it applies to stories and related spectator-role genres. In general, it was expected that the constructs would be more meaningful to the older children, and that they would be more completely organized into a construct system.

More specifically, it was expected that the total within grid variation would increase with age; that intraclass correlations between grids for both angular distances and ratings would increase with age; that the proportion of variation accounted for by the first principal component would decrease with age; that the constructs 'works out as you would expect in the end', 'ends happily', 'like real life', 'could happen to me or my friends', 'easy to understand', and 'simple' would become less positively evaluative; that 'like what happens to me' and 'like real life' would become less strongly related to one another; that _Cinderella_ would be construed significantly differently by the different age groups sampled; that there would be clear consensus about the characteristics of 'favourites' in the various genres and media; that the construct systems defined by responses to each of the genres studied would be significantly related to one another; that 'one I like' and 'well-written' would become less strongly related to one another; and that 'well-written', 'original', 'slow-moving', 'teaches a lesson', 'makes me think', and 'disturbing' would become more positively evaluative for the older subjects.

It was also predicted that well-remembered stories would lead to more differentiation of the construct system than stories remembered poorly, but this analysis had to be abandoned because of confounding with evaluation: the stories remembered best were invariably favourite stories or others liked very well, with a consequent restriction of variation relative to poorly remembered stories (which showed a range from well to poorly liked).

Teacher Questionnaire: Titles

This instrument (Tl) was used to elicit titles from the primary school teachers for use as part of the main study oral grid. Its function was similar to that of the 'reading survey' given to secondary school students. This resulted in a usable list of titles for each of the 6 classes involved, though because the study was carried out early in the academic year it was not always possible for the teacher to adhere to the story-categories indicated. Hence there is more overlap between the stories than the format might suggest. (Rather than leave categories blank, teachers were asked to suggest other 'different kinds' that their classes would know.) In a few cases, titles suggested by the teachers were not recognized by individual children; in such cases alternatives from other classes were used. Supplementary table 8, appendix I, summarizes the actual titles used.

Vocabulary Scale

The Mill Hill vocabulary scale was initially included to provide a relatively quick, standardized measure of verbal ability that could be used to describe the samples rather than to examine individual differences. The oral form of the scale was used in the interviews, and the written form with older subjects. As described in chapter III, however, the written version was abandoned after initial efforts made it obvious that it could not be successfully administered without a second testing session, itself precluded by problems of scheduling. The oral form was given as part of the interview, however, and scored using Dunsden and Roberts' (1955) norms. These are more recent than those provided with the tests (Raven, 1965), which are simply a reissue of the original 1944 standardization.

Reading Scale

Scores on the Holborn reading test were made available by the school for all nine year olds in the study and are reported in chapter III. These tests were given by the teacher at the beginning of the academic year. Like the Mill Hill vocabulary measure, the Holborn scale is a relatively short test more useful for describing groups than for evaluating the performance of individual children. Copies of the test are available in Watts (1944), who also discusses its rationale and provides simple norms.

APPENDIX IV

INSTRUMENTS

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Reading Survey Background Information #1

Name: ______________________________ Today's date: ______________
(day, month, year)

Tick one: ___Mr
___Miss

Class: ______________ Your birthdate : ______________

Age: __________ Parents' occupations: ______________________________

1. How much reading do you do, compared with other people your age?
Tick one:
___a lot more than most
___a bit more than most
___about the same as most
___a bit less than most
___a lot less than most

2. How much reading do you do for your own pleasure, compared with how much you do for your teachers?
Tick one:
___a lot more for myself
___a bit more for myself
___about the same for both
___a bit more for my teachers
___a lot more for my teachers

3. How many books have you read in the past 4 weeks? __________

What were their titles? ______________________________

____

4. Which of the following do you most enjoy? Put a '1' next to your favourite, a '2' next to the second-best, and so on for '3', '4', '5', '6', and '7'.

___listening to pop music
___going to the cinema
___reading a story
___going to a play
___reading a poem
___watching a television serial
___reading a comic book

Reading Survey #2

Name: ______________________________ Today's date: ______________

For your next English lesson, think of a different story (novel or short story) for each of the following categories. Pick stories you know well enough to answer some questions about, but be sure you have 8 different stories when you are done. Any sort of book can be used, as long as it is a story and not a history, science text, or other book of information.

1) Your favourite story: ______________________________

2) A story you do not like: ______________________________

3) A story of great depth: ______________________________

4) A story that is easy and quick to read: ______________________________

5) Another story you like: ______________________________

6) A very difficult (hard) story: ______________________________

7) A moving or gripping story: ______________________________

8) A story you have recently read or heard: ______________________________

Grid Record Form G1

Name: ______________________ Date: __________

1=pole a, 2=qualified a, 3=neutral, 4=qualified b, 5=pole b

/__/__/__/__/__/__/__/__/

1. very good-not __ __ __ __ __ __ __ __
2. teaches a lesson-doesn't __ __ __ __ __ __ __ __
3. really happened-made up __ __ __ __ __ __ __ __
4. easy to understand-hard __ __ __ __ __ __ __ __
5. ends happily-sadly __ __ __ __ __ __ __ __
6. interesting subject-boring __ __ __ __ __ __ __ __
7. long-short __ __ __ __ __ __ __ __
8. older than you-younger __ __ __ __ __ __ __ __
9. serious-funny __ __ __ __ __ __ __ __
10. one you like-don't __ __ __ __ __ __ __ __

Subject: ______
Age group: ______
Sex: ______
Vocab. group ______
Teacher: ______

Name: ______________________ Date: __________

/__/__/__/__/__/__/__/__/

1. very good-not __ __ __ __ __ __ __ __
2. teaches a lesson-doesn't __ __ __ __ __ __ __ __
3. really happened-made up __ __ __ __ __ __ __ __
4. easy to understand-hard __ __ __ __ __ __ __ __
5. ends happily-sadly __ __ __ __ __ __ __ __
6. interesting subject-boring __ __ __ __ __ __ __ __
7. long-short __ __ __ __ __ __ __ __
8. older than you-younger __ __ __ __ __ __ __ __
9. serious-funny __ __ __ __ __ __ __ __
10. one you like-don't __ __ __ __ __ __ __ __

Subject: ______
Age group: ______
Sex: ______
Vocab. group ______
Teacher: ______

Name: ______________________ Date: __________

/__/__/__/__/__/__/__/__/

1. very good-not __ __ __ __ __ __ __ __
2. teaches a lesson-doesn't __ __ __ __ __ __ __ __
3. really happened-made up __ __ __ __ __ __ __ __
4. easy to understand-hard __ __ __ __ __ __ __ __
5. ends happily-sadly __ __ __ __ __ __ __ __
6. interesting subject-boring __ __ __ __ __ __ __ __
7. long-short __ __ __ __ __ __ __ __
8. older than you-younger __ __ __ __ __ __ __ __
9. serious-funny __ __ __ __ __ __ __ __
10. one you like-don't __ __ __ __ __ __ __ __

Subject: ______
Age group: ______
Sex: ______
Vocab. group ______
Teacher: ______

Reading Questionnaire G2

Name: ______________________ Today's date: __________

Below is a list of various kinds of stories. For each one, name a story that you know very well--but give a different story each time. Try to use stories that are as different from each other as you can think of.

1) Your favourite story: ______________________

2) A story you do not like: ______________________

3) A story of great depth: ______________________

4) A story that is easy and quick to read: ______________________

5) Another story you like: ______________________

6) A very difficult (hard) story: ______________________

7) A moving or gripping story: ______________________

8) A story you have recently heard or read: ______________________

When you have finished you should have a list of 8 different stories.

Now use your 8 stories to fill in the 8 blank spaces at the top of the box on the next page. Be careful to put each one in the right space--your favourite story in the space marked 'favourite', one you do not like in the space marked 'not liked', and so on. The novel Turn About has already been placed in the first space as an example, and Cinderella in the second.

Down the side of the box are a number of things you might say about a story. For Cinderella and each of your stories, decide whether you 1) agree completely with each thing that is said; 2) agree a little bit; 3) neither agree nor disagree (or do not know); 4) disagree a little bit; or 5) disagree completely. Then put the number that goes with how you feel in the space under the story and next to the statement. Turn About has been done for you as a (made up) example. The '1' in the first space means that someone 'agreed completely' that Turn About is 'very good'. The '3' in the second space means that they could not decide whether they agreed or disagreed that Turn About is 'disturbing'. And the '5' in the third space means they 'disagreed completely' that Turn About is 'dull'.

Now fill out the other 9 columns, starting with Cinderella and then doing the 8 stories you picked. Fill out all of the blanks for each story before going on to the next, and do the stories in order (Cinderella, favourite, not liked, and so on). Be sure you use a different story in each column, and answer all of the questions for each. (You will be told what to do with the blank row (number 20) after you have finished all of the others.)

If you cannot decide about an answer, or do not think a question makes sense for your particular story, put a '3' in the space.

Name: ______________________________

Remember what the numbers mean.

1) Agree completely
2) Agree a little bit
3) Neither agree nor disagree(or don't know)
4) Disagree a little bit
5) Disagree completely

	Turn About	Cinderella	favourite:	not liked:	deep:	easy:	liked:	hard:	gripping:	recent:
1. Very good	1									
2. Disturbing	3									
3. Dull	5									
4. Works out as you would expect in the end	2									
5. Teaches a lesson	4									
6. Original	1									
7. Easy to understand	5									
8. Could happen to me or my friends	5									
9. Ends happily	2									
10. Slow-moving	3									
11. Full of violence	4									
12. Well-written	1									
13. Completely absorbing	4									
14. Makes me think	4									
15. Simple	1									
16. Serious	5									
17. One I like	1									
18. Like real life	2									
19. Interesting subject	3									

Name: ______________________________

Now that you have finished rating each story on the descriptions we have given you, what description have we overlooked that seems to you to be important? (For example, you might think it important to know if a story is 'very old' or if it 'has enough pictures'.)

1. ______________________________

Of the 19 descriptions which we gave you, which two seem to you to be the most important when thinking about a story?

1. ______________________________
2. ______________________________

Which two seem least important?

1. ______________________________
2. ______________________________

Of the stories you listed, which one did you find you remembered best?

1. ______________________________

Which did you remember least well?

1. ______________________________

Below is another list of the descriptions we gave you, with a space for your own at the end. For each one, write in the space next to it what you thought its opposite was, that is, what a story was like when you disagreed with the description. (For example, if the description had been hot, for its opposite you might think of cold.)

1. Very good
2. Disturbing
3. Dull
4. Works out as you would expect in the end
5. Teaches a lesson
6. Original
7. Easy to understand
8. Could happen to me or my friends
9. Ends happily
10. Slow-moving
11. Full of violence
12. Well-written
13. Completely absorbing
14. Makes me think
15. Simple
16. Serious
17. One I like
18. Like real life
19. Interesting subject
20.

Which story of all those you know most deserves to win a prize as the 'best' story?

1. ______________________________

Reading Questionnaire G3

Name: ______________________________ Today's date: ____________

On the next page you will find a box with 7 kinds of things to read, watch, or listen to written along the top. For each of these things, think of one example that you like and write it into the space. (For example, where it says 'a film', write in the name of a cinema film that you like. If you do not like any films very much, pick one that you at least like better than the others you know.)

Now look at the descriptions along the side of the box. For each example that you picked, decide for each description whether you 1) agree completely that it describes the title you picked; 2) agree a little bit; 3) neither agree nor disagree (or do not know); 4) disagree a little bit; or 5) disagree completely that it describes your title. Then put the number that goes with how you feel in the space.

For example, if you agree completely that the film you chose is 'very good', put a '1' in the space directly under 'a film'; if you cannot decide if it is 'very good', put a '3' in the space; and if you disagree completely that it is 'very good', put a '5' in the space. Fill out all of the spaces under the 7 titles in this way, starting with 'a film' and then doing 'a poem', 'a comic book', 'a television serial', 'a story', 'a play', and a 'pop song'.

After filling out the box on the next page, what description have we overlooked that seems to you important to add? (For example, you might think it important to know if things are 'very old' or 'by a good author'.) Use this to fill in the last space in the box.

1. ____________________

Of the 19 descriptions which we gave you, which two seem to you to be the most important?

1. ____________________
2. ____________________

Which two seem least important?

1. ____________________
2. ____________________

Below is another list of the descriptions we gave you, with a space for your own at the end. For each one, write in the space next to it what you thought its opposite was, that is, what something was like when you disagreed with the description. (For example, if the description had been hot, for its opposite you might think of cold.)

1. Very good
2. Disturbing
3. Dull
4. Works out as you would expect in the end
5.
5. Teaches a lesson
6. Original
7. Easy to understand
8. Could happen to me or my friends
9. Ends happily
10. Slow-moving
11. Full of violence
12. Well-written
13. Completely absorbing
14. Makes me think
15. Simple
16. Serious
17. One I like
18. Like real life
19. Interesting subject
20.

Name: ______________________________ --2

Remember what the numbers mean.

1) Agree completely
2) Agree a little bit
3) Neither agree nor disagree
(or don't know)
4) Disagree a little bit
5) Disagree completely

	a film	a poem	a comic book	a TV serial	a story	a play	a pop song
1. Very good							
2. Disturbing							
3. Dull							
4. Works out as you would expect in the end							
5. Teaches a lesson							
6. Original							
7. Easy to understand							
8. Could happen to me or my friends							
9. Ends happily							
10. Slow-moving							
11. Full of violence							
12. Well-written							
13. Completely absorbing							
14. Makes me think							
15. Simple							
16. Serious							
17. One I like							
18. Like real life							
19. Interesting subject							
20. ____________________							

Grid Record Form G4

Name: ______________________ Date: __________

1=pole a, 2=qualified a, 3=neutral, 4=qualified b, 5=pole b

roles: favourite film, poem, TV serial, rhyme, story, song

/__/__/__/__/__/__/

1. very good-not ___ ___ ___ ___ ___ ___
2. teaches a lesson-doesn't ___ ___ ___ ___ ___ ___
3. really happened-made up ___ ___ ___ ___ ___ ___
4. easy to understand-hard ___ ___ ___ ___ ___ ___
5. ends happily-sadly ___ ___ ___ ___ ___ ___
6. interesting subject-boring ___ ___ ___ ___ ___ ___
7. long-short ___ ___ ___ ___ ___ ___
8. older than you-younger ___ ___ ___ ___ ___ ___
9. serious-funny ___ ___ ___ ___ ___ ___
10. one you like-don't ___ ___ ___ ___ ___ ___

Subject: ______
Age group: ______
Sex: ______
Vocab. group ______
Teacher: ______

Name: ______________________ Date: __________

/__/__/__/__/__/__/

1. very good-not ___ ___ ___ ___ ___ ___
2. teaches a lesson-doesn't ___ ___ ___ ___ ___ ___
3. really happened-made up ___ ___ ___ ___ ___ ___
4. easy to understand-hard ___ ___ ___ ___ ___ ___
5. ends happily-sadly ___ ___ ___ ___ ___ ___
6. interesting subject-boring ___ ___ ___ ___ ___ ___
7. long-short ___ ___ ___ ___ ___ ___
8. older than you-younger ___ ___ ___ ___ ___ ___
9. serious-funny ___ ___ ___ ___ ___ ___
10. one you like-don't ___ ___ ___ ___ ___ ___

Subject: ______
Age group: ______
Sex: ______
Vocab. group ______
Teacher: ______

Name: ______________________ Date: __________

/__/__/__/__/__/__/

1. very good-not ___ ___ ___ ___ ___ ___
2. teaches a lesson-doesn't ___ ___ ___ ___ ___ ___
3. really happened-made up ___ ___ ___ ___ ___ ___
4. easy to understand-hard ___ ___ ___ ___ ___ ___
5. ends happily-sadly ___ ___ ___ ___ ___ ___
6. interesting subject-boring ___ ___ ___ ___ ___ ___
7. long-short ___ ___ ___ ___ ___ ___
8. older than you-younger ___ ___ ___ ___ ___ ___
9. serious-funny ___ ___ ___ ___ ___ ___
10. one you like-don't ___ ___ ___ ___ ___ ___

Subject: ______
Age group: ______
Sex: ______
Vocab. group ______
Teacher: ______

Interview Schedule I 1

Name: ______________________ M F Date: ____________

Teacher: ______________________ Birth: ____________

Age (from child) ____________

1. Does your teacher read to you in school? ____________
   When? (How often?) ____________

2. Do you hear stories at home? ____________
   When? (How often?) ____________

3. What is a story? A rhyme? A poem? ____________

4. Grid G1

5. You said you liked ________. Why? ____________

6. You said you did not like ________. Why? ____________

   Who do you know that might like it? Why do you think he will like it if you don't? (Is he your age?) ____________

7. How does a poem differ from a story? How is it like a story?

8. How does a poem differ from a rhyme? How is it like a rhyme?

9. How does a story differ from a rhyme? How is it like a rhyme?

10. What is your favourite story? Tell me about it. ____________

11. If you could give a prize to the best story ever written, what story would you pick? ____________

12. If you hear a story about a boy, what kind of pet will the boy usually have in the story? ____________
    What kind will a girl in a story have? ____________
    Do you have any pets? What? ____________

13. When you hear a story about a turtle, the turtle is usually very slow. Now if you hear a story about a lion, the lion is usually? ____________ Wolf? ____________
    rabbit? ____________ fox? ____________
    fairy? ____________ witch? ____________

14. What does it mean to say, "You must have gotten out of the wrong side of the bed this morning"? ____________

15. Vocabulary Scale.

Interview Schedule I2

Name: M F Date

Teacher: Birth

Age (from child)

1. Does your teacher read to you in school?
   When? (How often?)

2. Do you hear stories at home?
   When? (How often?)

3. Grid G4

4. Where do stories come from? (Who makes the book? Where does he get his stories? Where does the story come from first?)

5. What sort of things happen in stories? (What are they about?) What things can we tell stories about? What things don't we usually tell stories about?

6. Where does Cinderella live? Where is that? How could we get there? Could we go and visit?

7. What is the story of Little Red Riding Hood about? What happens in it?

8. Is Cinderella a real person? What is she doing right now?

9. Are stories always about things that really happen?
   When did the things in Red Riding Hood happen?

10. FABLE. What is the story that I just read you about?

    Why did the first man think the elephant was like a wall?

    Why did the fifth man think the elephant was like a fan?

    How could each man be partly right, and all of them be wrong?

    Do you know what a blind man is? What?
    Now you tell me the story from the beginning.

11. Do you ever like to hear a story over again? Why?

12. Have you ever seen a giant? Why do you think that is? Where do you think they live?

13. What does it mean to say, "When the cat's away, the mice will play"?

The Fable

This is a story about six men from a far-away place called Indostan. Listen to it carefully as I read it to you, so that you can talk about it with me.

The Blind Men and the Elephant

It was six men of Indostan
   To learning much inclined,
Who went to see the Elephant
   (Though all of them were blind),
That each by observation
   Might satisfy his mind.

The First approached the Elephant,
   And happening to fall
Against his broad and sturdy side,
   At once began to bawl:
"God bless me! but the Elephant
   Is very like a wall!"

The Second, feeling of the tusk,
   Cried, "Ho! what have we here
So very round and smooth and sharp?
   To me 'tis mighty clear
This wonder of an Elephant
   Is very like a spear!"

The Third approached the animal,
   And happening to take
The squirming trunk within his hands,
   Thus boldly up and spake:
"I see," quoth he, "the Elephant
   Is very like a snake!"

The Fourth reached out an eager hand,
   And felt about the knee.
"What most this wondrous beast is like
   Is mighty plain," quoth he;
"'Tis clear enough the Elephant
   Is very like a tree!"

The Fifth who chanced to touch the ear,
   Said: "E'en the blindest man
Can tell what this resembles most;
   Deny the fact who can,
This marvel of an Elephant
   Is very like a fan!"

The Sixth no sooner had begun
   About the beast to grope,
Then seizing on the swinging tail
   That fell within his scope,
"I see," quoth he, "the Elephant
   Is very like a rope!"

And so these men of Indostan
   Disputed loud and long,
Each in his own opinion
   Exceeding stiff and strong,
Though each was partly in the right,
   And all were in the wrong!

--by John Godfrey Saxe, in Story Poems, selected and edited by Louis Untermeyer, Pocket Library, 1957.

The final stanza is omitted for the present investigation:

So oft in theologic wars,
   The disputants, I ween,
Rail on in utter ignorance
   Of what each other mean,
And prate about an Elephant
   No one of them has seen!

Additional questions (not on interview schedule):
- -- What do you think of that story? (immediately after reading fable)
- -- What does 'to learning much inclined' mean? (after 'blind')
- -- Which do you most enjoy doing: going to the cinema to see a film, listening to a poem, watching television, listening to a rhyme, or listening to a song? Which next? (and so on, ranking 1 to 6)

Reading Questionnaire I3

Please answer these questions on the separate paper provided.

1. Write your name and today's date on the top of the first page.
2. What different reasons are there for liking a poem or story?
3. What different reasons are there for not liking a poem or story?
4. Of the reasons you have just given for questions 2 and 3, which two are the most important?
5. Pick any poem or story that you know well and write about it.
6. Looking back at your answer to question 5, underline the one most important thing about the story or poem.
7. Do you ever read a book over again? Why?
8. What is your favourite story of all those you know?
9. What story of all those you know most deserves to win a prize as the 'best' story? (If you think it should be, this can be the same as your answer to question 8.)
10. Is it more important that a story be true-to-life or imaginative and original? Why?
11. What sorts of things would you think about if you were deciding which stories and poems it would be more important to read with your teacher, and which to read on your own?
12. Briefly explain what each of the following sayings means.
    a. When the cat's away, the mice will play.
    b. Birds of a feather flock together.

Teacher Questionnaire: Titles (T1)

Name: ______________________________ Date: ______________

For the study of children's ideas about literature, I need a set of six different stories with which all of the children in your class will be familiar. Can you help by suggesting one title for each of the categories below--6 different titles in all, plus the reading series with which they are most familiar? The list at the bottom of the page includes some that appeared in preliminary studies at another school last term; it may help a bit in thinking of titles. (Please do not use Cinderella, since that is being used in another context.)

a. The reading series used (titled as the children know it, e.g., 'Peter and Jane' for Ladybird):

Six stories:

1. A story the children ask to hear over again:
2. A story they have recently heard:
3. A story they find difficult to understand:
4. An easy, 'light' story for them:
5. Another story they like:
6. Another they find difficult:

Suggestions from last term: The Three Little Pigs, Snow White and the Seven Dwarfs, The Three Billy Goats Gruff, Sleeping Beauty, Little Red Riding Hood, Goldilocks and the Three Bears, The Wolf and the Seven Kids, Beauty and the Beast, The Prince and the Pauper, Chicken Licken, The Elves and the Shoemaker, Rapunzel, Jack and the Beanstalk, The Miller and the Donkey and the Son, The Gingerbread Man, Peter and the Wolf, Wind in the Willows, The Little Wooden Horse, Winnie the Pooh, Pinnochio, The Enormous Turnip, Harry the Dirty Dog, Bambi, Grey Rabbit Stories, Peter Pan, 101 Dalmations, The Pied Piper, The Phantom Tollbooth, The Silver Sword, The Hobbit, King Arthur, Orlando, Charlotte's Web.

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