

DOCUMENT RESUME

ED 233 501

EA 016 069

AUTHOR Mergendoller, John R.
TITLE To Facilitate or Impede? The Impact of Selected Organizational Features of Secondary Schools on Adolescent Development. Ecological Perspectives for Successful Schooling Practice.

INSTITUTION Far West Lab. for Educational Research and Development, San Francisco, Calif.; Wisconsin Center for Education Research, Madison.

SPONS AGENCY National Inst. of Education (ED), Washington, DC.
REPORT NO EPSSP-82-2
PUB DATE 82
GRANT NIE-G-81-0009
NOTE 33p.; Paper presented at the Annual Meeting of the American Educational Research Association (New York, NY, March 19-23, 1982).

PUB TYPE Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Adolescent Development; Affiliation Need; Class Organization; *Educational Environment; Friendship; Individual Development; *Interpersonal Competence; Interpersonal Relationship; Personal Autonomy; Psychology; School Activities; *School Organization; School Size; Secondary Education; Student Role; *Student School Relationship

ABSTRACT

This report discusses adolescent development by examining psychological research and theory and examining the process of adolescent development in the social context of secondary schools. The author functions from a base of four assumptions: (1) that the contours of adolescent experience can constrain or facilitate adult development, (2) that development represents a balancing of individual accommodation and assimilation of the environment, (3) that development is normative, and (4) that different cultures have different values. Outlined are the interrelated development dimensions of cognitive skills, reality, relatedness, and autonomy. Since the author believes development occurs as a result of individuals' interaction with their environment, research on the effect of school size, student role, and the social organization of the classroom on adolescent development is examined. The research suggests that the typical secondary school has a deleterious effect on adolescent development. Schools are too big, students are often excluded from active roles in governance, and classrooms are often too competitive. In conclusion the author points out that secondary schools provide powerful levers to facilitate as well as to impede the adolescent development process. Included is an extensive bibliography. (MD)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

ED233501

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.



"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Jeremy George

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Ecological Perspectives

for

SUCCESSFUL SCHOOLING PRACTICE

TO FACILITATE OR IMPEDE?

THE IMPACT OF SELECTED ORGANIZATIONAL FEATURES OF SECONDARY SCHOOLS ON ADOLESCENT DEVELOPMENT

1982 AERA Annual Meeting
(Session 57.20)
New York City

John R. Mergendoller

Report EPSSP-82-2

EA 016 069

FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT
1855 FOLSOM STREET - SAN FRANCISCO, CALIFORNIA 94103

This material is based upon work supported by the National Institute of Education under Grant No. NIE-G-81-0009 to the Wisconsin Center for Education Research. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author and do not necessarily reflect the views of the Institute or the Department of Education.

Ecological Perspectives for SUCCESSFUL SCHOOLING PRACTICE

TO FACILITATE OR IMPEDE?

THE IMPACT OF SELECTED ORGANIZATIONAL FEATURES
OF SECONDARY SCHOOLS ON ADOLESCENT DEVELOPMENT

1982 AERA Annual Meeting
(Session 57.20)
New York City

John R. Mergendoller

Report EPSSP-82-2

William J. Tikunoff
Director, Programs on Schooling

FAR WEST LABORATORY
FOR EDUCATIONAL RESEARCH AND DEVELOPMENT
1855 FOLSOM STREET · SAN FRANCISCO, CALIFORNIA 94103

TO FACILITATE OR IMPEDE?
THE IMPACT OF SELECTED ORGANIZATIONAL FEATURES OF
SECONDARY SCHOOLS ON ADOLESCENT DEVELOPMENT¹

John R. Mergendoller

It is commonly acknowledged that a central purpose of secondary schools is to facilitate students' development from the status of children to that of adults. Although organizational features of schools and classrooms that affect student social relationships have been examined (e.g., Bidwell, 1965, 1970, 1972; Boocock, 1973; Bossert, 1979; Johnson, Johnson, & Scott 1978; Schmuck, 1978, 1980; and Waller, 1932), and various dimensions of adolescent development explicated (e.g., Adelson, 1980; Adams, 1976; Erikson, 1968; Kohlberg & Gilligan, 1971), with one noteworthy exception (Mosher, 1979), there have been relatively few attempts to consider explicitly the impact of the organizational features of secondary schools on adolescent development.

In the following pages, I will bring together several currents of psychological research and theory and examine how the process of adolescent development might be affected by the social context of secondary schools. I begin by describing several assumptions that have guided my thinking about adolescent growth and development. I then discuss four major dimensions of development that are especially important during adolescence,² and hypothesize the manner in which individuals' school experience may facilitate or impede development along these dimensions. Finally, I examine how certain organizational features of secondary schools seem to affect the daily experience of students, and, in turn, facilitate or impede such growth.

Although the following discussion encompasses what I believe to be major theoretical and experiential dimensions of adolescent growth, the treatment of the organizational features of secondary schools is more idiosyncratic. I have not sought to give a complete description of the structural characteristics of secondary schools; instead, I consider those organizational features that appear to have the greatest impact on adolescents' social, psychological, and cognitive development.

1 To appear in Adolescent Development and Secondary Schooling, F. Newmann, C. Steeter, Eds. Madison, Wisc.: Wisconsin Center for Education Research, 1982.

2 In this paper I use the words "growth" and "development" synonymously.

Guiding Assumptions

A number of assumptions about the nature and importance of adolescent development have guided this essay; I wish to make them explicit before proceeding.

First, the process of development from infancy to adulthood is characterized by the expansion of individuals' capabilities for action, thought, and social relationships. As the dictionary would have it, individuals "evolve the possibilities" of human existence. Development during adolescence, like development during other identifiable periods (e.g., infancy, early childhood), has a specific functional significance in this expansionary process; continued development as an adult is dependent on successful completion of the adolescent period.

The assumption that the contours of adolescent experience can constrain or facilitate adult development is central to most psychologists' discussions of adolescence, including Erikson's vastly influential writings (e.g., 1959, 1968, 1979). Several empirical studies (Bachman, O'Mally & Johnson, 1978; Kelly, 1979; Moriarty & Toussieng, 1976; and Vaillant, 1977) that set out to examine the functional significance of adolescence in the life cycle were reviewed by Newman who concluded:

First, adolescence may well be a period for the consolidation of one's coping style. Second, the articulation of a lifestyle in young adulthood appears to be heavily dependent on competencies, aspirations and life choices developed in adolescence. Third, the extent to which maturation continues through adulthood may reflect on the ability to experiment and encounter conflict in adolescence. (1979:260)

Attention to the impact of secondary schools on adolescent experience, then, implies a concern not only with improving the quality of adolescent life in itself, but also with facilitating optimal preparation for continued psychological growth. Because of the assumed importance of the "preparatory" nature of adolescent experience, the following discussion is focused on the "ideal type potential" of the adolescent experience to foster continued human development (c.f. Kohlberg & Gilligan, 1971:1055), rather than the "normative response to adolescence" chronicled by Douvan and Adelson (1966).

Second, development proceeds as a result of individuals' interactions with their environments. Whether one is concerned with the development of the structural competencies of thought, the formation of intimate social relationships, or the more mysterious alignments of individual identity, development occurs as individuals obtain information, interpret it, and act within their physical and social environments. Development, to use the Piagetian metaphor, represents

equilibration of individuals' successive accommodations to and assimilation of their environments.

Third, although various psychological theories use different explanatory frameworks to describe the processes and subprocesses of adolescent growth, there is relative agreement among developmental psychologists concerning the dimensions along which individuals must mature if they are to become optimally functioning adults. Development is normative; it is directed toward the attainment of explicit psychological goals.

Fourth, although there is relative agreement among Western psychologists concerning the goals appropriate to adolescent development, different cultures and subculture may conceive of different goals or value differentially certain developmental attainments and dimensions. In the end, we all are confronted with personal and cultural commitments to our own preferred "bag of virtues" (Kohlberg & Mayer, 1972), a point emphasized by Metz in her response to this paper. This should be borne in mind when discussing adolescent development in different cultures and subcultures.

Dimensions of Development

Development can be thought of as a fabric woven of individual conceptual strands. When observed from a customary distance, the fabric blends together into an interdependent mass of observed behavior and reported perceptions. When subjected to scrutiny, however, more or less conceptually distinct strands of development can be discerned. In the next section I will inspect four strands of development that have particular significance during the adolescent years: (1) cognitive skills; (2) identity; (3) relatedness; and (4) autonomy. Although discussed separately out of expository necessity, these developmental strands are not independent, but rather penetrate and influence each other.

The Development of Cognitive Skills

The growth of cognitive skills plays a crucial role in the totality of adolescent development for two reasons. First, certain reflective and analytic capacities are required for adolescents to recognize their own identity, interpret the obligations and opportunities inherent in social relationships, and understand necessary limitations to their own autonomous expression. An increased ability to process personal, social, environmental, and historical information thus nurtures growth along other developmental dimensions. In addition, sophisticated information processing skills are necessary if individuals are to understand and respond appropriately to the practical, theoretical, and social challenges of daily life. The ability to employ complex cognitive skills, then, also represents an important outcome of adolescent growth. Although adolescents remain concerned with pragmatic issues and engage in the same sorts

of cognitive operations that characterize concrete operational thought, they have the potential to learn to consider the possibilities of existence and the external philosophical questions that have always plagued human experience. During adolescence the perception of reality may become "secondary to possibility" (Inhelder & Piaget, 1958:251). With newly developed capabilities of thought, adolescents are able to formulate sophisticated plans and strategies to deal with the future.

Although developmentalists often describe the attainment of formal operational thought as being characteristic of adolescent growth, a number of researchers have questioned how many adolescents actually demonstrate the ability to use it. Using the traditional Piagetian assessment tasks, they have reported that approximately 50 percent of their adolescent and adult samples were unable to demonstrate the characteristics of full formal operational thought as defined by Inhelder and Piaget (Dulit, 1979; Keating, 1980; King, 1977; Kuhn, Langer, Kohlberg, & Haan 1977; Neimark, 1975). Such widespread inability to use propositional logic suggests that the development of formal operational thought is highly dependent upon the environmental opportunities that are available to practice such thinking.

Research has documented that the emergence of demonstrated formal operational capabilities is associated with distinct types of previous social and cultural experience and is quite susceptible to training (Gallagher & Noppe, 1976:212; Keating, 1980:237). This suggests that the cognitive demands present within adolescents' school environments may have a crucial effect on the development of sophisticated information processing skills. To draw on Flavell's oft-quoted distinction (1977), the capability for reflective, abstract thought may come into existence during adolescence, but will not be utilized unless there is a need for it.

Attainment of cognitive maturity in adolescence requires demonstration of the sophisticated thinking strategies necessary to examine abstract philosophical and theoretical questions, and may be exemplified as a "Stage 4" or "Systems" understanding of the nature of oneself, one's friends, parents, reference groups, and the moral order of the larger society (Gibbs, 1979). This level of cognitive development reflects the systemization of earlier cognitive capacities and the development of second order thinking processes that enable the adolescent:

"to form a viable society, real or hypothetical," and appreciate the relation between individual and society . . . in terms of social functions and practices." (p. 102)

The Development of Identity

Identity is an elusive concept whose meaning, to borrow Wittgenstein's famous distinction (1973), is more easily "shown" than "said." Erik Erikson, the man whose influential writings have popularized the concept, often takes just such an evocative approach when writing

about the experiential reality of "what identity feels like when you become aware of the fact that you do undoubtedly have one" (1968:19). Here Erikson is quoting from a letter of William James to his wife.

A man's character is discernible in the mental or moral attitude in which, when it came upon him, he felt himself most deeply and intensely active and alive. At such moments there is a voice inside which speaks and says: "This is the real me!"

James further comments that although the experience of a sense of identity is:

. . . a mere mood or emotion to which I can give no form in words, [it] authenticates itself to me as the deepest principle of all active and theoretical determination which I possess . . .

Attaining a sense of identity is important to developmental progress because it provides an explicit personal criterion to guide future decisions and actions. While the formation of identity begins long before adolescence, during adolescence social expectations and psychophysiological impulses unite to prod the individual to develop a sense of self. Also, during adolescence individuals attain the cognitive and affective capabilities that enable them to synthesize past knowledge and affections with present experience, and project future possibilities (Douvan & Adelson, 1966; Marcia, 1980). The concept of identity thus provides a conceptual shorthand for individuals' unique integration and recognition of their "identifications, capacities, opportunities and ideals" (Douvan & Adelson, 1966:15). The identities individuals construct during adolescence allow them to find psychological stability in the midst of social and physical change.

Just as the white line is most clearly visible against the black asphalt of the highway, individual identity is often most clearly recognized against and experienced within a social context. Identity formation forces individuals to lodge themselves "within a social reality that they understand" (Erikson 1979:143), and accept the assumptions, attitudes, and ideology of those who share that social reality. At the same time, it requires them to recognize groups and individuals as being different -- or not identical.

Identity formation, however, involves more than the recognition and acceptance of group identifications. Various authors (e.g., Gibbs, 1979; Gilligan & Murphy, 1980; Kohlberg & Gilligan, 1971; Perry, 1968) have written cogently about the existential ideals and commitments one may make as one attains formal operational capabilities of thought during adolescence. By committing oneself to a personal vision of the world, one fortifies the process of selfdefinition. To define oneself as an individual, according to the etymology of the word, is to fix the boundaries of one's self, and the actions that self will undertake. Such actions can involve occupational choices,

engagement in social relationships, habits of dress and demeanor, aesthetic judgements, and moral and political expression.

My own study of the war resistance of high school and college men suggests that the establishment of the moral boundaries of the self is a powerful component of adolescent identity formation and that individuals' decisions about whether or not to take moral actions can be directly related to their perceptions of themselves as moral actors (Author, 1981). Consider, for example, the following excerpt from a letter written by Tim Southwood, one of the participants in the above study, who was sentenced to prison for willfully refusing induction. This excerpt presents Tim's response to his judge's questions about why Tim had not applied for Conscientious Objector Status.

A requirement [for CO status] is that I be against all wars, and I just can't make that statement. This is the only war I've been asked to fight in and this is the war I can't fight in . . . I don't know what I'd do in a different situation, but thinking of World War II makes me certain that there is such a thing as a just war for our country . . .

So I don't feel that I can tell my draft board that I'm against all wars. I must admit that at times I've been tempted to be a CO and adjust my view so that I would be one, but if I did that what what would I really be?

When I asked Tim how he felt as he interposed his sense of himself as a moral person against the demand of the Selective Service System to perform acts he considered immoral, his response was reminiscent of the words of William James with which we began this section.

[I felt] a feeling of strength . . . strong in that I was facing up to it. I wasn't backing away from it; I wasn't being intimidated . . . I was just going through it, regardless of the consequences. [I] was getting a whole sense of my own strength as an individual, being able to stand by myself and not be intimidated.

Individuals recognize the nature of "their selves" and their "identities" through the reciprocal experiences of action and self-reflection, as well as through incorporating, without consciously examining, assessments of how much their own attributes and accomplishments are valued by others. Individuals' concepts of their identities, then, may be influenced by their experiences of self-expression, self-examination, and by the nature and quality of their social interactions.

Establishing an optimal developmental goal for the process of identity formation during adolescence is difficult. Identity consolidation and exploration neither begin nor end at adolescence, and formulating an "identity achieved" criterion as a developmental marker is inappropriate. A more useful guidepost may be found in the experiential stirrings of self-awareness, during which adolescents acknowledge and accept their individual distinctiveness as well as their resemblance to others, and come to value and accept this constellation of individual characteristics. I explicitly include as a part of this developmental goal the adolescent's recognition of positive self-worth and the implicit internalization of positive social values. Such a criterion of optimum identity formation thus excludes the attainment of antisocial or clinically pathological identities.

The Development of Relatedness

Gaining the ability to form mature friendships with members of one's own sex as well as with members of the opposite sex is a critical accomplishment of adolescence. Friendships facilitate the development of identity and self-understanding. Douvan and Adelson write:

The particular advantage of adolescent friendship is that it offers a climate for growth and self-knowledge that the family is not equipped to offer, and that very few persons can provide for themselves. Friendship engages, discharges, cultivates and transforms the most acute passions of the adolescent period, and so allows the youngster to confront and master them. Because it carries so much of the burden of adolescent growth, friendship acquires a pertinence and intensity it has never had before nor (in many cases) will ever have again. (1966:174)

As a result of assessing their relationships with others, adolescents come to understand how they are similar to and different from their peers. Discussing of personal philosophy and exploring shared and disputed ideas strengthen adolescents' interpretive frameworks and allow them to cognitively assess existential commitments.

The adolescent experience of close affiliation, however, is more than the handmaiden of identity formation. The attainment of intimate, caring associations is important in and of itself. Adolescent friendships with members of the same and opposite sex provide young people with their first deep affective attachments outside the realm of the family. These relationships provide a training ground for adult relationships built on trust, mutual support, and honest self-expression and revelation.

Although empirical studies indicate that adolescent friendships among members of the same sex develop differently for boys and girls, and emphasize different socio-emotional issues during early, middle,

and late adolescence (Coleman, 1980; Douvan & Adelson, 1966), common conditions for establishing friendship are necessary to all types of intimate relationships. These conditions include the opportunity for experiencing shared activities, thoughts, feelings, and the provision of reciprocal assistance in an environment of mutual trust.

Like identity, the developmental dimension of relatedness tends to be more evocative than operational. A developmental marker can be found in the attainment of natural and mature relationships in which both parties communicate ideas and feelings and reveal fears, hopes, and tentative visions of self and the world. Somewhat paradoxically, the experience of relatedness requires the cognitive ability to view dyadic interactions from an "objective" or "third person point of view" (Selman, 1980). At its most advanced level, it requires individuals to perceive that they are part of a larger whole and that at some level, other individuals and cultures have significant commonalities (c.f., Metz, 1980).

The Development of Autonomy

During adolescence, individuals gain the cognitive ability to foresee and the social opportunity to take increasing responsibility for their own lives and the consequences of their actions. Such abilities are linked to the exercise of autonomy. The word autonomy, as its etymology suggests, implies self-governance; autonomy requires that one make decisions and behave according to one's own vision of appropriate conduct. Without the opportunity for autonomous thought and action, adolescents may be prevented from breaking the childhood bonds of dependency on parents and family.

The development of autonomy is probably best fostered by allowing and encouraging adolescents to make increasingly significant decisions about the way in which they lead their current lives and prepare for future experience. Such decisions may best be wrestled with in a social context where individuals can discuss and debate alternative courses of action before taking them. In such a fashion, individuals exercise autonomy while they concurrently develop the ability to examine and justify projected courses of action.

Although it is often easy for adolescents to think and act as they see fit, such behavior, if not accompanied by an assessment of the impact of their behavior on others, may only represent immature and egocentric self-assertion. In contrast, it is the actions that reflect both the adolescent's emerging capacity to think independently, and which have been taken after consideration of their potential effect on others, which provide an appropriate developmental marker for autonomous self-expression.

The Impact of Secondary Schools on Adolescent Development

I have discussed above four developmental dimensions of maturation that are significant during adolescence because they facilitate continuing human growth throughout the life span. I assume that most adolescents will grow along these dimensions regardless of whether they attend secondary school, or regardless of the particular organizational and environmental configuration of the school they do attend. However, since development occurs as a result of individuals' interactions with their environments, the nature and extent of that growth is affected to some degree by the nature of the environment. Adolescents inhabit schools approximately 1400 hours a year; the impact of this social environment is of some consequence if we wish to maximize the possibility of maturation toward the criteria previously discussed.

I hypothesize that schools facilitate development if the daily experience of students encourages them to examine the nature of their physical and social worlds, to try out and utilize their nascent understandings of their identities, to form close affiliative bonds with others in the pursuit of common goals and the completion of common tasks, and to exercise their own capacities for planning and self-direction. In like manner, schools impede development if they confine student thought to the physically concrete and ethically mundane, obstruct adolescents from recognizing and examining their preferences, hopes, capabilities and distinctiveness, prevent the formation of social bonds cemented by common effort, and restrict self-directed actions and participatory governance.

Daily student experience in secondary schools, and thus the impact of secondary schools on adolescent development, will be greatly affected by three organizational features of schools: 1) the size of the school; 2) the nature of the student role within the school; and 3) the social organization of classroom experience. Each feature can facilitate or impede adolescent growth along the four dimensions of cognitive growth, identity, relatedness, and autonomy. In the following sections I consider each of these organizational features and reflect on how they affect the daily experience of students, and, consequently, adolescent development.

The Impact of School Size on Adolescent Development

Secondary schools are complex organizations with varied opportunities for student participation and involvement. Using the concept of "behavior setting" to denote "organized assemblies of behavior episodes, physical objects, spaces and durations" (Barker & Gump, 1964:19), Barker and his colleagues surveyed 13 Kansas schools with student populations ranging from 35 to 2287. After determining that classroom activities comprised only 20 percent of the total number of behavior settings, they pointed to the preponderance of non-instructional behavior settings that "demand the time and attention

of the students . . . [and] therefore contribute in some way or another to the schools' influence on students" (1964:198). When Barker and Gump examined the proportion of high school juniors who participated in behavior settings of all types, they discovered that "the proportion of participants was 3 to 20 times as great in the small schools as in the largest school" (1964:196). Although the largest school in their sample provided students with more varied "non-class behavior settings" when compared to the smaller schools, student participation in the small school behavior settings was deemed more significant and growth enhancing than participation in the large school settings.

. . . the small school students participated in the same number and in more variations of the available settings, on the average, than the students of the large school. Furthermore, a much larger proportion of small school students held positions of authority in the behavior settings they entered and occupied these positions in more varieties of settings than the students of the large school. (1964:196)

Commenting on the results of this research as well as on several studies that have replicated and extended the original findings (e.g., Baird, 1969; Wicker, 1968; Willems, 1967), Gump noted:

In terms of actual setting behavior, the small schools produced much more responsible or central position behavior than did the large school. Further, the setting satisfactions of the small school students emphasized gaining competence, meeting challenges, and gaining success in small group activity; large school students emphasized vicarious satisfactions and winning "points" for supporting certain extracurricular affairs. (1980:562)

The research of Gump and his colleagues compellingly demonstrates that school size is directly related to the percentage of students who participate in multiple and varied activities as well as the quality of these students' participation. I would argue that small schools facilitate social-cognitive development, identity formation, the establishment of multiple and diverse friendships and autonomous self-expression because they encourage increased participation in extracurricular activities. Let us consider how much positive developmental processes might occur.

First, participation in diverse and multiple activities may require students to take and reflect upon the taking of multiple social roles. Such activities, as many investigators have found, generally encourage the development of increasingly sophisticated levels of social perspective-taking and sociomoral thought (Chandler, 1973; Higgins, 1980; Johnson, 1975; Selman, 1980) as well as empathy and altruistic motivation (Hoffman, 1975). In addition to encouraging cognitive development, identity formation also should be affected by

increased participation in extracurricular activities. Such activities encourage students to try on and explore new self-conceptions and assess individual competencies. Students have expanded opportunities to practice the roles of leader and follower. They may confirm or discover preferences, passions, or new aspects of the self previously hidden from view, and thus facilitate the recognition and consolidation of identity. Small schools induce increased student participation in varied activities because they are "undermanned," that is, "when too few persons are available to carry out the activities occurring in each behavior setting, strong and diverse forces press those few to carry out more varied and central tasks in the setting" (Gump, 1980:561). Such forces are often experienced as invitations and entreaties from peers to join various activities so that the critical number of participants are available. The message implicit in such requests is that the invitee is valued for his or her ability to contribute to the common effort. A succession of messages that one is needed and is expected to contribute to group endeavors may have a significant impact on the adolescent's sense of identity and self-acceptance as a valued individual. Small schools should also encourage friendship formation. Participation in varied activities requires maintaining interpersonal relationships and making friends with diverse individuals who would normally be disregarded. During the activity itself, mutual engagement in the accomplishment of common tasks can act as a springboard to the development of more intimate relationships. Finally, since extracurricular activities are less directly influenced by the directive power of college admission requirements and the necessity to rank and separate student accomplishment, there should be more latitude for the expression of student autonomy and the opportunity to plan, discuss and carry out student-initiated projects.

In short, if we can assume that student engagement and satisfactions "related to challenge, activity and group affiliation" (Barker & Gump, 1964) are important facilitators of adolescent development, then we can assume that small schools support student participation in activities that encourage individual growth in ways which larger schools do not. Secondary schools should be, as Barker and Gump argue, "small enough that students are not redundant" (1964:202).

The Impact of the Student Role on Adolescent Development

My starting point in this discussion is a conception of the typical secondary school as a complex social organization whose most important actors inhabit the hierarchical roles of administrator, teacher, and student. Such organizations, as Charles Bidwell has remarked, demonstrate "a distinctive combination of bureaucracy and structural looseness" (1965:1012). As in any bureaucratic organization, those in higher status positions are given legitimate power to direct, sanction and constrain the behavior of subordinates, and to require that they act according to established role definitions. Yet because of the relatively flexible and unsupervised way in which the assigned "work" of teachers and students is carried out, schools often provide room for maneuvering around formal role expectations. Moreover, much

of the work of the school cum bureaucracy is carried out during interpersonal interactions, thus placing role definition at the mercy of situational construction and negotiation, and potentially opening the definition of the student role to unceasing debate.

The characteristic structural looseness of the school coupled with the ongoing, emergent quality of role negotiations results in a social order that is not fixed and often rests on a fragile and uneasy equilibrium among role groups. This uneasy equilibrium can be made more vulnerable by the fact that students as a group have their own preoccupations and aspirations, which are often greatly at variance with the official posture of the secondary school (Coleman, 1961, 1974; Waller, 1932). Should students perceive that their own interests and educational strivings are ignored by those entrusted with their education, they may respond with apathy, disruptive actions or alienation (Bidwell, 1970; Newmann, 1980; Waller, 1932).

Students make up the most numerous role group in the school, an observation that has an important corollary. Extensive rules and control procedures are needed to regulate the movement and actions of the great crowd of bodies that move about the school and inhabit classrooms. Students have significant power to disrupt the school and sabotage the instructional process. Care must be taken to ensure that suitable decorum is maintained in order that the work of the school -- teaching and learning -- may continue.

Given the centralized administrative structure of most secondary schools and the inescapable need to maintain social and physical order among a mass of adolescent spirit, one typical response of the school bureaucracy and its administrators is to narrowly delimit the student role and foster among the student population the expectation that students will face swift retaliation for deviations from this circumscribed role (M. H. Metz, 1978). When such procedures are successful, students do not "get out of line," administrative and curricular decisions flow smoothly, and a great many students can be managed and instructed by relatively few teachers and administrators.

The nature of the circumscribed "student role" has received extensive attention from educators and social psychologists (Bidwell, 1965; Blumenfeld, Hamilton, Bossert, Wessels & Meece, forthcoming; Boocock, 1973; Farber, 1969; Jackson, 1968; M. H. Metz, 1978; Newmann, 1980; Waller, 1932). Students, it is generally agreed, occupy the lowest status in the school hierarchy. They enter school involuntarily, and are only allowed to leave school (or terminate their studies) when given permission by those of higher status. They are formally disenfranchised, having little control over the teachers who will teach them, the course content they will pursue, the rules and regulations that they may be punished for disobeying, and the way in which they will learn the prescribed academic material. Boocock, among many others, has drawn attention to:

. . . the passivity attached to the student role. The "good" student listens to the teacher, follows instructions, does not disturb the class by

talking out of turn, and is otherwise receptive to being taught. (1973:24)

In short, secondary schools function as custodial institutions, forcing students to remain dependent on their adult caretakers in "a protracted state of infantilization" (Friedenberg, 1963).

I would argue that the impact on adolescent development of the prolonged enactment of such a circumscribed role will vary depending upon the developmental dimension in question.

When students are confined to the status of passive consumers of curriculum, this may impede students' social-cognitive development (Higgins, 1980). As a series of moral intervention studies indicate (Mosher, 1980), social-cognitive growth toward a "Stage 4: Systems" level (Gibbs, 1979) can be facilitated through active participation in a democratic and largely self-governing community. Summarizing the results of a decade of curriculum development, implementation and evaluation, Mosher writes:

. . . the most powerful moral education interventions involve discussions of real dilemmas in the context of a natural group . . . reasonable corollaries of discussing real situations in a natural group are the cultivation of democratic decision making, by giving to each participant a share in the decision and also the making of family or classroom contracts for implementing those decisions. (1980:103)

In perpetuating a student role definition that excludes students from the selection and management of their own academic program and social arrangements, secondary schools not only ignore adolescents' social-cognitive growth, they may discourage their personal investment in academic pursuits. The work of researchers in the field of organizational behavior (Argyris, 1965; Bennis, 1969; Schein, 1969; Tjosvold, 1980) suggests forcefully that organizational arrangements that give individuals relative autonomy over their actions and provide opportunities for collaborative problem solving between superiors and subordinates facilitate members' experience of "psychological success" (Tjosvold, 1980:289), increase their personal commitment to the task at hand, and enhance individuals' "social and intellectual capacities" (Tjosvold, 1980:289). If classroom content is to provide fuel for the development of adolescent epistemology, and encourage the questioning and exploration of the moral, social, and philosophical issues that surround collective social life, the student role needs to be redefined. The student should not be defined as a passive and powerless consumer of prepackaged curricula, but rather as an active agent who struggles with others to take responsibility for learning and social behavior.

The process of identity formation may also be negatively affected if students internalize views of themselves as passive automatons who are unable to direct their own learning or take responsibility

for their social behavior. Alternatively, students may become disaffected with the process of education and exclude academic engagement and curiosity from their own vision of themselves. On the other hand, peer relationships may be strengthened by such a student role definition; adolescents' resentment and boredom can provide a powerful common focus for initial affiliations. The development of relationships with teachers, however, is likely to suffer from the strains inherent in keeping student behavior safely inside the confines of the student role. As Willard Waller observed of the typical teacher-student relationship where pupils must be constantly "kept in line":

The teacher pupil relationship is a form of institutionalized domination and subordination. Teacher and pupil confront each other in the school with an original conflict of desires, and however much that conflict may be reduced in amount, or however much it may be hidden, it still remains. The teacher represents the adult group, ever the enemy of the spontaneous life of groups of children. The teacher represents the formal curriculum, and his interest is in imposing that curriculum upon the children in the form of tasks; pupils are much more interested in life in their own world than in the dessicated bits of adult life which teachers have to offer. (1932:195-6)

Turning to the consequences of the passive student role for the development of autonomy, recent research by Kelly (1979) and his associates (Jones, 1979; Rice & Marsh, 1979) on the "coping and adaptation" of adolescent boys presents a confusing picture. These investigators determined that in schools where the norms and procedures do not specifically encourage student involvement in planning and decision making, adolescents can nonetheless demonstrate autonomous, self-initiated behaviors. Kelly's research was conducted in two high schools that were generally similar in physical facilities and campus, composition and preparation of faculty, and SES of students. The two schools differed markedly, however, in social and influence structures:

The principal at Wayne [High School] seems to have a large amount of influence at his school . . . yet students share some of the decision making. At Thurston [High School], the school board and the parents have larger amounts of influence, and the students seem to be left out . . . Less consensus is found among the Thurston staff in terms of their expectations for students. (Rice & Marsh, 1979)

The researchers hypothesized that the environments of Wayne and Thurston would differentially facilitate "exploratory behavior," a coping style that resembles what I have called the expression of autonomy. Kelly and his colleagues considered exploratory behavior

to be "significant for adaptation" because it leads to greater familiarity with the "social resources" present in the environment and knowledge of their use (Jones, 1979:152). To test this hypothesis, a dyadic problem-solving situation was created to measure exploratory behavior. It was assumed that students who had attended Wayne High School would demonstrate more "exploratory behavior" than those who had attended Thurston. After coding and analyzing verbatim transcripts of students' problem-solving discussions, the researchers determined that the results did not support the hypothesized school effects. Jones comments about this counter-intuitive finding:

In deriving the hypothesis, a case was made for Wayne being more likely to encourage exploratory behavior because of the school's clearer norms and greater flexibility. There is another way of looking at it, though. It may be easier to be a social explorer at Wayne, but it may also be less crucial. For instance, if information about norms is freely available, there is less need to acquire coping styles to help attain it. Thurston provides a rigid but murky environment. Norms are not clear. Students are not as comfortable with peers or staff. There is tension and ambiguity. Under these conditions, a high explorer may get more mileage out of his coping style, in spite of the lumps he may take. In sum, the noxious environment of Thurston may actually provide greater rewards for exploratory behavior and with it develop greater capabilities for school problem solving. (1979:171)

One implication to be drawn from this study is that school environments and the student role they require may foster the development of autonomy in different ways. A circumscribed student role, which does not formally allow students to participate in school governance, may nonetheless facilitate the development of autonomy if students engage in "school problem-solving" on their own. Students are thus forced to discover the limits of role-appropriate behavior by themselves, and determine without formal assistance how to accomplish their own goals in a "noxious" environment. As a result, they may become quite adept in the covert exercise of autonomy.

The Impact of the Social Organization of the Classroom on Adolescent Development

By social organization of the classroom, I refer to the social and material arrangements by which teachers and students come together to complete assignments and accomplish schoolwork. These include the manner in which the teacher organizes children and materials for instruction (e.g., individualized programs, small-group tasks, whole-class seatwork, whole-class recitation, etc.), the nature and similarity of assigned learning tasks as well as the freedom given students to choose and define their own tasks, the amount of cooperation and

interdependence (if any) required of students during the completion of assigned tasks, and the nature of the classroom reward and accountability systems.

Although little research has been conducted at the secondary level that focuses on the impact on students of these organizational features of classroom life, a number of provocative studies have been conducted with slightly younger (and occasionally older) students (e.g., Aronson, Bridgeman & Geffner, 1978; Bridgeman, 1977; Bossert, 1979; Covington & Berry, 1976; Covington & Omelich, 1979; Deci, Nezlek & Sheinman, 1981; Johnson, 1980; Rosenholtz & Rosenholtz, 1981; Simpson, 1981; Weinstein, 1981). My strategy in this section is to draw upon this research for examples of the processes that have been demonstrated or hypothesized to occur in classrooms, and consider these processes in light of the four dimensions of adolescent development enumerated earlier in this paper.

In drawing on these studies, I assume that the social processes observed in the upper-elementary grades continue to occur in identically organized secondary classrooms. An important difference between the structure of elementary and secondary schools, however, is the fact that adolescents attend a series of classes taught by different teachers in secondary school and may have more opportunity to experience varied types of classroom organizational arrangements.³ I assume that the individual classroom effects reported in the studies cited below may be diminished or increased by the aggregation of classroom experiences throughout the school day, an assumption supported in recent research by Sleeter (1981).

The first dimension of adolescent development to be considered here is that of cognitive growth in the social domain. In the past 20 years much activity has centered around the development and implementation of specific curricula and procedures designed to facilitate the development of more mature levels of social-cognitive thought (Mosher, 1979, 1980; Selman, 1980). A central strategy of many of these interventions has involved the facilitation of individuals' social perspective-taking ability, by which one is able to take the role of others and see the world through their eyes. Social-cognitive intervention programs that place students in situations where they are encouraged (if not required) to take the perspective of others, and then mutually examine and discuss differences in perceptions, pre-suppositions and judgments have been regularly shown to facilitate social-cognitive development (Higgins, 1980).

³ My colleagues and I at the Far West Laboratory began a study of student transition from elementary school to junior high school with the same assumption. Much to our surprise, we found most seventh-graders at the junior high school we studied experienced more varied classroom environments in the sixth rather than the seventh grade. See Rounds, Ward, Mergendoller, & Tikunoff (1981).

Within the classroom, it is the "goal structure" that determines with whom students work to complete the work. Johnson identifies three types of classroom goal structures -- cooperative, competitive, and individualistic:

A cooperative goal structure exists when students perceive they can obtain their goal if and only if the other students with whom they are linked obtain their goals. A competitive goal structure exists when students perceive that they can obtain their goal if and only if the other students with whom they are linked fail to obtain their goals. An individualistic goal structure exists when students perceive that obtaining their goal is unrelated to the goal achievement of other students. (1980:133)

The use of cooperative goal structures to provide mutual task involvement requires students to learn to express their own and understand others' perceptions, and reach mutual accommodations concerning the courses of action to be taken. After conducting a major review of the impact of group processes on student learning, Johnson concluded the impact of classroom goal structure on social-cognitive development is unequivocal:

cooperative learning experiences . . . promote greater cognitive and emotional perspective-taking abilities than either competitive or individualistic learning experiences. (1980:138)

The second component of adolescent development considered here is identity formation. This requires students to make realistic assessments of their individual preferences and abilities. Given the nearly universal emphasis placed on academic achievement in this society, and the large amount of time students remain in school, a student's conception of his or her academic ability forms a cornerstone of a more global self-conception, and may have a major impact on his or her generalized feelings of self-worth (Johnson, 1980; Schmuck, 1978). Within the classroom, students seek and receive a great deal of information about how they are doing. Some assessments come directly from the teacher in the form of grades, written comments and casual remarks (Weinstein, 1981). Other assessments are made by students themselves as they appraise their own accomplishment in light of those of other students (Frieze, 1980). Such social comparison processes (Festinger, 1954) thrive within the typical classroom, as any teacher who has watched students look around the room to determine who has finished the assignment will attest. As Frieze notes, the "school setting is one in which the desire for social comparison information is maximized" (1980:61).

For students to be able to compare their own academic attainments to those of others there must be a common metric of accomplishment. As Bossert (1978), Rosenholtz and Rosenholtz (1981), and Simpson (1981) have shown, the existence of such a common metric depends greatly on

how the social organization of the classroom orders the instructional tasks and information available to students.

Important organizational characteristics that influence the information available to students about their own and others' levels of performance include:

Classroom task differentiation [or] . . . the number of [academic or social] dimensions along which students perform. The higher the task differentiation, the greater the probability that different students will excel at different skills, and the less likely the tendency to perceive any given student's performance as consistently good or poor.

Student autonomy . . . the greater the autonomy, the greater students' opportunities to dimensionalize their performances by selecting a variety of different tasks.

The teacher's grouping and comparative assessment practices . . . where students are grouped by ability or grouped as a whole class to perform similar tasks, teachers are likely to engage in comparative assessments . . . [when] students work individually at a variety of different tasks, performance is more likely to be judged by individually referenced standards, and performance inequalities should be far less noticable. (1981:134; emphasis added)

The impact of these organizational features on students' assessment of their academic ability in reading and consequent perceptions of identity were shown to be quite direct:

In unidimensional instruction, where few choices in performance interpretations are available and where these choices are highly visible, evaluations of individual students by the teacher, classmates, and self more frequently disperse into high and low rankings of ability. In contrast, under multidimensional conditions, where a greater range of performance information is made available and where that performance information is less visible, students and teachers tend toward more similar rankings of average or above average in reading ability. (Rosenholtz & Rosenholtz, 1981:139)

This finding gains additional significance if students do not rely on a cumulative assessment of their own academic ability based on years of classroom experience, but reinterpret "situational cues regarding ability" when they enter new classrooms, thus engaging in "more situation-specific judgments than had been thought" (Simpson, 1981:131). This suggests that self-perceptions of ability are alterable, given the organizational features of classroom experience. As a consequence, adolescent identity formation may be propelled toward assessments of either self-worth or self-inadequacy, depending upon

the organizational features of the classrooms students inhabit. In unidimensional secondary classrooms, students' global self-perceptions of academic ability should tend toward dichotomization: students either perceive they are smart or stupid. In multidimensional secondary classrooms, students' global self-perceptions of academic ability should tend toward a median ranking of competence and demonstrate more complex and differentiated thought.

The goal structure of classroom learning tasks is an additional organizational factor that has been shown to affect the development of individuals' senses of self-worth. Cooperative goal structures require students to work together to complete the assigned task and lead "individuals to treat their partners in the same ego-enhancing manner they treat themselves" (Aronson, Bridgeman & Gaffner, 1978). Such treatment provides implicit and explicit information to students that they are worthy individuals who have the ability to contribute to the completion of classroom tasks. These messages, in turn, facilitate the development of students' perceptions of self-worth. Field experiments conducted with fifth- and sixth-grade students have demonstrated that a relatively brief exposure to cooperatively-structured learning experiences can produce gains in self-esteem when compared with the self-esteem of students engaged in independent learning tasks (Johnson, Johnson & Scott, 1978) or traditional competitive classroom instruction (Blaney, Stephen, Rosenfeld, Aronson & Sykes, 1977; Geffner, 1978).⁴ Such gains in self-esteem should facilitate the development of self-acceptance and self-confidence -- two of the signs of positive identity formation.

The social organization of students' classroom experience does not only affect adolescent identity formation, it can have significant impact on the establishment of adolescent friendships. Johnson (1980) and Schmuck (1978) argue persuasively that classrooms that utilize cooperative goal structures facilitate the formation of mature friendships among students. Johnson writes:

There is considerable evidence that cooperative experiences, compared with competitive and individualistic ones, result in more positive interpersonal relationships characterized by mutual liking, positive attitudes toward each other, mutual concern, friendliness, attentiveness, feelings of obligation to other students, and a desire to win the respect of other students. (1980:139)

Since the classroom provides an important arena for peer affiliations, its impact on adolescent friendship development may be quite

⁴ Johnson, Johnson, and Scott (1978) employed interdependent learning tasks for one hour a day for 50 days. Blaney et al. (1977) reorganized classroom processes for 45 minutes a day, 3 days a week over a six-week period, and Geffner's (1978) research was conducted over "an eight-week period" (Aronson, Bridgeman, & Geffner, 1978).

substantial. Classrooms that foster the intimacy-enhancing characteristics cited above should thus facilitate adolescent growth.

Bossert's (1979) research on the social organization of classrooms also illuminates the impact of classroom organization on the establishment of student friendships. Bossert discovered that students formed ability-homogeneous friendship groups and maintained these groups throughout the year in the classrooms of teachers who relied predominantly on recitation forms of instruction. (Rosenholtz and Rosenholtz would probably call these unidimensional classrooms.) In the classrooms of teachers who relied more upon small group and independent assignments (what Rosenholtz and Rosenholtz would probably call multidimensional classrooms), students formed ability-heterogeneous friendship groups, and the membership of these groups remained fluid as hobbies and common interests shifted. Bossert concludes:

To the extent that task performances are visible, comparable, and clearly linked to classroom rewards, children will choose friends on the basis of academic status. (1979:91)

These results articulate well with the findings cited above by Johnson. So far as classroom instructional systems allow students to compare their attainment with that of others, they encourage social relations that are stratified according to the prevailing academic hierarchy. This impedes the formation of a wide range of positive relationships and fosters interpersonal competition. In contrast, classroom instructional systems that require students to work together and that do not draw explicit attention to the successes and failures of individual students will facilitate the establishment of a broader range of friendships that demonstrate higher levels of trust, intimacy, and mutual sharing.

While I have implicitly argued above that multidimensional classrooms that provide for the expression of student autonomy facilitate the development of a positive identity, the development of autonomy as a dimension in its own right is equally important. An interesting study conducted by Deci, Nezlek, and Steinman (1981) examined the impact of teachers' reward and control styles on students' intrinsic motivation and self-esteem. Deci and his colleagues hypothesized that students assigned to the classrooms of teachers who were oriented toward controlling their students through the frequent use of teacher-initiated rewards and sanctions would have lower levels of intrinsic motivation and self-esteem than those students who found themselves in the classrooms of teachers who tried to facilitate student autonomy and the resolution of classroom issues with minimal teacher direction. They conducted their research in 36 third- and fourth-grade classrooms. Teachers were asked to complete a questionnaire that described typical classroom problems ("not preparing lessons, bullying other children, stealing") and that presented different ways each problem could be resolved. These resolution scenarios had been constructed to reflect four orientations ranging from "highly controlling -- teachers make decisions about what is right and utilize highly controlling sanctions to produce the desired behavior"

to "highly autonomous -- teachers encourage children to consider the relevant elements of the situation and to take responsibility for working out a solution to the problem" (1981:5).

From the perspective of student development, however, it is not the orientation of the teacher that is significant, but the nature of the classroom experience lived by the student. While Deci and his colleagues focused on the personal orientations of teachers, it must be assumed that these orientations were operationalized in a system of instruction and management that reflected the teachers' intentions. One must presume the classroom procedures of the "highly autonomous" teachers included community meetings or other ways to resolve classroom problems, while the "highly controlling" teachers provided no such mechanisms for the exercise of student autonomy.⁵

The results of this study generally supported the initial hypotheses of the investigators. They write:

Within the first six weeks, the children had adapted to the teacher. Those who were with teachers that were oriented toward autonomy and the use of rewards as information rather than control tended to adapt to the situation by operating more with an intrinsic mode. Once this adaptation was made, it tended to be stable as long as the situation remained constant . . . In sum, this study showed a clear relationship between characteristics of the rewarder and intrinsic motivation and perceived competence of the rewardee. (1981:8-9)

These findings demonstrate that students' classroom experiences can affect more generalized self-perceptions and behavioral preferences. If students are to learn autonomy, they benefit from the opportunity to practice it. Students' desire and ability to undertake tasks on their own (an overlapping component of both intrinsic motivation and autonomy) will be impeded in a classroom environment that does not allow for and encourage such self-expression.

Concluding Thoughts

In general, the research cited above suggests that the typical comprehensive secondary school has a deleterious effect on adolescent development. Schools are too big. Students are too often excluded from taking an active role in school governance and directing their

⁵ Unfortunately Deci and his colleagues did not observe classrooms, so we remain ignorant of the actual nature of student experience in the classrooms of autonomous and controlling teachers.

own educational programs. Classrooms are too often competitive environments where recitation remains the predominant mode of instruction.⁶ Such schools can maim in the name of education.

The research cited above, however, also implies that schools can facilitate adolescent growth. The organizational features of secondary schools provide powerful levers to facilitate (as well as impede) the developmental process. Our task here is to take careful hold of these conceptual levers, and plot appropriately envisioned manipulations.

⁶ In the junior high school which was the site of the Junior High School Transition Study, out of a sample of 11 seventh-grade teachers, we found only 2 whose predominant mode of instruction was not recitation. See Ward, et al. (1981).

REFERENCES

- Adams, J.F. Understanding adolescence: Current developments in adolescent psychology (3d ed.). Boston: Allyn & Bacon, 1976.
- Adelson, J. Handbook of adolescent psychology. New York: Wiley-Interscience, 1980.
- Argyris, C. Integrating the individual and the organization. New York: Wiley, 1965.
- Aronson, E., Bridgeman, D. L., & Geffner, R. The effects of a cooperative classroom structure on student behavior and attitudes. In D. Bar-Tal & L. Saxe (Eds.), Social psychology of education: Theory and research. New York: John Wiley, 1978.
- Bachman, J. G., O'Malley, P. M., & Johnston, J. Youth in transition, Volume VI: Adolescence to adulthood -- change and stability in the lives of young men. Ann Arbor, Mich.: Institute for Social Research, 1978.
- Baird, L. L. Big school, small school: A critical examination of the hypothesis. Journal of Educational Psychology, 1969, 60(4), 253-260.
- Barker, R. G., & Gump, P. V. Big school, small school: High school size and student behavior. Stanford, Cal.: Stanford University Press, 1964.
- Bar-Tal, D., & Saxe, L. Social psychology of education: Theory and research. New York: John Wiley & Sons, 1978.
- Bates, J. A. Extrinsic reward and intrinsic motivation: A review with implications for the classroom. Review of Educational Research, 1979, 49(4), 557-76.
- Bennis, W. G. Organization development: Its nature, origins, and prospects. Reading, Mass.: Addison-Wesley, 1969.
- Bidwell, C. E. The school as a formal organization. In J. March (Ed.), Handbook of organizations. Chicago: Rand McNally & Co., 1965.
- Bidwell, C. E. Students and schools: Some observations on client-trust in client-serving organizations. In W. Rosengren & M. Lefton (Eds.), Organizations and clients. Columbus, Ohio: Merrill, 1970.
- Bidwell, C. E. Schooling and socialization for moral commitment. Interchange, 1972, 3, 1-27.

- Blaney, N., Stephen, C., Rosenfield, D., Aronson, E., & Sikes, J. Interdependence in the classroom: A field study. Journal of Educational Psychology, 1977, 5, 304-310.
- Blasi, A., & Hoeffel, E. C. Adolescence and formal operations. Human Development, 1974, 17, 344-363.
- Blumenfeld, P. C., Hamilton, V.L., Wessels, K., & Meece, J. Teacher talk and student thought: Socialization into the student role. In J. Levine & M. Wang (Eds.), Teacher and student perceptions: Implications for learning. Hillsdale, N. J.: Lawrence Erlbaum Associates, forthcoming.
- Blumer, H. C. Symbolic interactionism: Perspective and method. Englewood Cliffs, N. J.: Prentice-Hall, 1969.
- Boocock, S. S. The school as a social environment for learning: Social organization and micro-social process in education. Sociology of Education, 1973, 46, 15-50.
- Bossert, S. T. Tasks and social relationships in classrooms: A study of instructional organization and its consequences. New York: Cambridge University Press, 1979.
- Bridgeman, D. L. The influence of cooperative, interdependent learning on role taking and moral reasoning: A theoretical and empirical field study with fifth-grade students. Unpublished doctoral dissertation, University of California at Santa Cruz, 1977.
- Chandler, M. J. Egocentrism and antisocial behavior: The assessment and training of social perspective taking skills. Developmental Psychology, 1973, 9, 326-332.
- Coleman, J. C. Friendship and the peer group in adolescence. In J. Adelson (Ed.), Handbook of adolescent psychology. New York: Wiley-Interscience, 1980.
- Coleman, J. S. The adolescent society. New York: Free Press, 1961.
- Coleman, J. S. Report of the president's science advisory committee. Youth transition to adulthood. Chicago: University of Chicago Press, 1974.
- Covington, M. V., & Beery, R. Self-worth and school learning. New York: Holt, Rinehart, & Winston, 1976.
- Covington, M. V., & Omelich, C. L. It's best to be able and virtuous too: Student and teacher evaluative response to successful effort. Journal of Educational Psychology, 1979, 71(5), 688-700.
- Deci, E. L., Nezlek, J., & Sheinman, L. Characteristics of the rewarder and intrinsic motivation of the rewardee. Journal of Personality and Social Psychology, 1981, 40(1), 1-10.

- Douvan, E., & Adelson, J. The adolescent experience. New York: Wiley, 1966.
- Dreeben, R. On what is learned in school. Reading, Mass.: Addison-Wesley, 1968.
- Dulit, E. Adolescent thinking a la Piaget; The formal stage. In R. A. Mosher (Ed.), Adolescents' development and education: A Janus knot. Berkeley, Cal.: McCutchan, 1979.
- Erikson, E. H. Identity and the life cycle. Psychological Issues, 1959, 1(1).
- Erikson, E. H. Identity, youth and crisis. New York: Norton, 1968.
- Erikson, E. H. Memorandum on youth. In R. A. Mosher (Ed.), Adolescents' development and education: A Janus knot. Berkeley, Cal.: McCutchan, 1979.
- Farber, J. The student as nigger. North Hollywood, Cal.: Contact Books, 1969.
- Festinger, L. A theory of social comparison processes. Human Relations, 1954, 7, 117-140.
- Flavell, J. H. Cognitive development. Englewood Cliffs, N. J.: Prentice-Hall, 1977.
- Friedenberg, E. Z. Coming of age in America: Growth and acquiescence. New York: Random House, 1963.
- Frieze, I. H. Beliefs about success and failure in the classroom. In J. H. McMillan (Ed.), The Social Psychology of School Learning. New York: Academic Press, 1980.
- Gallagher, J. & Noppe, C. Cognitive development and learning. In James F. Adams (Ed.), Understanding adolescence: Current developments in adolescent psychology (3d ed.). Boston: Allyn & Bacon, 1976.
- Gallatin, J. Theories of adolescence. In J. F. Adams (Ed.), Understanding adolescence: Current developments in adolescent psychology (3d ed.). Boston: Allyn & Bacon, 1976.
- Geffner, R. The effects of interdependent learning on self-esteem, interethnic relations, and intra-ethnic attitudes of elementary school children: A field experiment. Unpublished doctoral dissertation, University of California at Santa Cruz, 1978.
- Gibbs, J. C. Kohlberg's moral stage theory: A Piagetian revision. Human Development, 1979, 22, 89-112.

- Gilligan, C., & Murphy, J. M. Moral development in late adolescence and adulthood: A critique and reconstruction of Kohlberg's theory. Human Development, 1980, 23, 76-104.
- Gump, P. V. The school as a social situation. In L. W. Porter & M. R. Rosenzweig (Eds.), Annual Review of Psychology (Vol. 31). Palo Alto: Annual Review Press, 1980.
- Havighurst, R. J. A cross-cultural view. In J. F. Adams (Ed.), Understanding adolescence: Current developments in adolescent psychology (3d ed.). Boston: Allyn & Bacon, Inc., 1976.
- Havighurst, R. J. Human development and education. London: Longmans, Green & Co., 1953.
- Higgins, A. Research and measurement issues in moral intervention studies. In R. L. Mosher (Ed.), Moral education: A first generation of research and development. New York: Praeger Publishers, 1980.
- Hoffman, M. L. The development of altruistic motivation. In D. J. DePalma & J. M. Foley (Eds.), Moral development: Current theory and research. Hillsdale, N. J.: Lawrence Erlbaum Associates, 1975.
- Inhelder, B., & Piaget, J. The growth of logical thinking from childhood to adolescence. New York: Basic Books, 1958.
- Jackson, P. Life in classrooms. New York: Holt, Rinehart & Winston, 1968.
- Johnson, D. W. Cooperativeness and social perspective taking. Journal of Personality and Social Psychology, 1975, 31(2), 241-244.
- Johnson, D. W. Group processes: Influences of student-student interaction on school outcomes. In J. H. McMillan (Ed.), The social psychology of school learning. New York: Academic Press, 1980.
- Johnson, D. W., & Johnson, R. Learning together and alone: Cooperation, competition, and individualization. Englewood Cliffs, N. J.: Prentice-Hall, 1975.
- Johnson, D. W., Johnson, R. & Scott, L. The effects of cooperative and individualized instruction on student attitudes and achievement. Journal of Social Psychology, 1978, 104, 207-216.
- Jones, W. H. Exploratory behavior of adolescents in a dyadic problem solving situation. In J. G. Kelly (Ed.), Adolescent boys in high school: A psychological study of coping and adaptation. Hillsdale, N. J.: Lawrence Erlbaum Associates, 1979.

- Katz, M. B. Class, bureaucracy, and schools: The illusion of educational change in America. New York: Praeger, 1971.
- Keating, D. P. Thinking processes in adolescence. In J. Adelson (Ed.), Handbook of adolescent psychology. New York: Wiley-Interscience, 1980.
- Kelly, J. G. Adolescent boys in high school: A psychological study of coping and adaptation. Hillsdale, N. J.: Lawrence Erlbaum Associates, 1979.
- King, P. Formal operations and reflective development in adolescence and young adulthood. Unpublished doctoral dissertation, University of Minnesota, Minneapolis, 1977.
- Kohlberg, L. From is to ought: How to commit the naturalistic fallacy and get away with it. In T. Mischel (Ed.), Cognitive development and epistemology. New York: Academic Press, 1976.
- Kohlberg, L. Moral stages and moralization: The cognitive developmental approach. In T. Lickona (Ed.), Moral development and behavior: Theory, research and social issues. New York: Holt, Rinehart & Winston, 1976.
- Kohlberg, L., & Gilligan, C. The adolescent as a philosopher: The discovery of the self in a postconventional world. Daedalus, 1971, 100(4), 1051-1086.
- Kohlberg, L., & Mayer, R. Development as the aim of education. Harvard Educational Review, 1972, 42(4), 449-496.
- Kuhn, D., Langer, J., Kohlberg, L., & Haan, N. The development of formal operations in logical and moral judgment. Genetic Psychology Monographs, 1977, 95(1), 97-188.
- Leavitt, H. J. Some effects of certain communication patterns on group performance. In E. E. Macoby, T. M. Newcomb & E. L. Hartley (Eds.), Readings in social psychology. New York: Henry Holt, 1958.
- Marcia, J. E. Identity in adolescence. In J. Adelson (Ed.), Handbook of adolescent psychology. New York: Wiley-Interscience, 1980.
- McMillan, J. H. Social psychology and learning. In J. H. McMillan (Ed.), The social psychology of school learning. New York: Academic Press, 1980.
- Mergendoller, J. R. War resistance and moral experience. Unpublished doctoral dissertation, University of Michigan, Ann Arbor, 1981.
- Metz, K. Desocio entering: A neo-Piagetian model of the process of decentering in the intergroup context. Human Development, 1980, 23, 1-16.

- Metz, M. H. Classrooms and corridors: The crisis of authority in desegregated secondary schools. Berkeley, Cal.: University of California Press, 1978.
- Moriarty, A. E., & Toussieng, P. W. Adolescent coping. New York: Grune & Stratton, 1976.
- Mosher, R. L. (Ed.). Adolescents' development and education: A Janus knot. Berkeley, Cal.: McCutchan, 1979.
- Mosher, R. A democratic high school: Coming of Age. In R. L. Mosher (Ed.), Moral education: A first generation of research and development. New York: Praeger Publishers, 1980.
- Neimark, E. D. Intellectual development during adolescence. In F. D. Horowitz (Ed.), Review of child development research (Vol. 4). Chicago: University of Chicago Press, 1975.
- Newman, B. M. Coping and adaptation in adolescence. Human Development, 1979, 22, 255-262.
- Newmann, F. M. Research prospectus: The potential for generating collective identity in secondary schools: Implications of research on adolescence. Unpublished manuscript, University of Wisconsin, 1980.
- Newmann, F. W. Reducing student alienation in high schools: Implications of theory. Unpublished manuscript, University of Wisconsin, 1981.
- Perry, W. G. Forms of intellectual and ethical development in the college years: A scheme. New York: Holt, Rinehart & Winston, 1968.
- Piaget, J. Intellectual evolution from adolescence to adulthood. Human Development, 1972, 15, 1-12.
- Rice, R. R., & Marsh, M. The school environments: Background. In James G. Kelly (Ed.), Adolescent boys in high school: A psychological study of coping and adaptation. Hillsdale, N.J.: Lawrence Erlbaum Associates, 1979.
- Rosenholtz, S. J., & Rosenholtz, S. H. Classroom organization and the perception of ability. Sociology of Education, 1981, 54 (April), 132-140.
- Rosenholtz, S. J., & Wilson, B. The effect of classroom structure on shared perceptions of ability. American Educational Research Journal, 1980, 17(1), 75-82.
- Rounds, T. S., Ward, B. A., Mergendoller, J. R., & Tikunoff, W. J. Junior High School Transition Study Vol. 2: Organization of instruction. Elementary School - Junior High School Comparison.

- San Francisco: Far West Laboratory for Educational Research and Development, 1981. (Report EPSSP-81-6)
- Schein, E. H. Process consultation: Its role in organizational development. Reading, Mass.: Addison-Wesley, 1969.
- Schmuck, R. A. Applications of social psychology to classroom life. In D. Bar-Tal & L. Saxe (Eds.), Social psychology of education: Theory and research. New York: John Wiley, 1978.
- Schmuck, R. A. The school organization. In J. H. McMillan (Ed.), The social psychology of school learning. New York: Academic Press, 1980.
- Selman, R. L. The growth of interpersonal understanding: Developmental and clinical analyses. New York: Academic Press, 1980.
- Sleeter, C. Student friendship and cultural knowledge related to human diversity in a multi-racial and mainstreamed junior high school. Unpublished doctoral dissertation, University of Wisconsin, 1981.
- Simpson, C. Classroom structure and the organization of ability. Sociology of Education, 1981, 54 (April), 120-132.
- Tjosvold, D. Alternative organizations for schools and classrooms. In J. H. McMillan (Ed.), The social psychology of school learning. New York: Academic Press, 1980.
- Vaillant, G. E. Adaptation to life. Boston: Little, Brown, 1977.
- Waller, W. The sociology of teaching. New York: Russell and Russell, 1932.
- Weinstein, R. S. Student perspectives on "achievement" in varied classroom environments. Paper presented at the meeting of the American Educational Research Association, Los Angeles, April 1981.
- Wicker, A. W. Undermanning, performances, and students' subjective experiences in behavior settings of large and small high schools. Journal of Personality and Social Psychology, 1968, 10(3), 255-261.
- Willems, E. P. Sense of obligation to high school activities as related to school size and marginality of student. Child Development, 1967, 38, 1247-1260.
- Wittgenstein, L. Philosophical investigations (3rd ed.) (K. Scott, Ed.). New York: Macmillan, 1973.