DOCUMENT RESUME

ED 308 940 PS 018 113

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TITLE The Emergence of Morality in the Second Year of Life.
PUB DATE Apr 89
NOTE 54p.; Paper presented at the Biennial Meeting of the Society for Research in Child Development (Kansas City, MO, April 27-30, 1989).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Case Studies; *Cognitive Ability; Communication (Thought Transfer); *Empathy; *Individual Development; Inferences; *Language Acquisition; *Moral Development; Mothers; Naturalistic Observation; Standards; *Toddlers
IDENTIFIERS *Developmental Patterns

ABSTRACT

In a study of children's moral development, four toddlers and their mothers were observed at home approximately every three weeks when toddlers were 13-23 months of age. Six behavioral signs of children's awareness of standards were coded: (1) proud looks, achievement smiles, statements of accomplishment; (2) awareness of, interest in, and exclamations about flawed objects and discrepant events; (3) awareness of a violation; (4) awareness that something was potentially harmful; (5) use of moral vocabulary, use of labels such as "good," "bad," or "yucky," and questioning or reciting of a rule; and (6) saying "Uh-oh" in response to accidents or with no evident reference. Mothers' remarks related to achievement, discrepancy, transgression, and empathy were coded. All four children showed peaks in signs between 17 and 18 months, and first displayed empathy between 16 and 19 months. Patterns of maternal communications followed the changes in children's behaviors. A class of behavior that was almost completely free of maternal input was interest in flawed objects and discrepant events. After 17 months, children were able to infer wrongdoing and another person's intentions. A major increase in use of internal state words occurred around the time of the peak in awareness of standards. Data suggest that early signs of moral concern may depend more on maturational than on socialization processes. About 90 references are cited. (RH)

The Emergence of Morality in the Second Year of Life

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Paper from which 1989 Kansas City SRCD conference paper presentation was derived. Currently under journal review.

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Abstract

Four toddlers and their mothers were observed at home approximately every three weeks when they were between 13 and 23 months old. Six behavioral signs of awareness of standards were coded from the observations. All four children showed peaks in these behavioral signs between 17 and 18 months, and all children first displayed empathy between 16 and 19 months. Patterns of maternal communications regarding such behaviors followed the changes in children's behaviors. A class of behavior almost completely free of maternal input emerged: interest in flawed objects and discrepant events. Performance on inference tasks indicated that after 17 months children were able to infer wrongdoing and another person's intentions. A major increase in use of internal state words occurred around the time of the peak in awareness of standards. These data suggest that early signs of moral concern may depend more on maturational rather than socialization processes.

How we become moral human beings is one of the oldest philosophical questions. Throughout history, philosophers, priests, and psychologists have wondered whether civilization instills in each of us a sense of right and wrong or whether it takes away inborn benevolent inclinations; whether rational thinking or biological forces leads people, in spite of selfish wishes, towards moral behavior.

Recent research with children suggests that events during the second year of life are essential to moral development. Children show an interest in and even distress at a doll with a missing arm or a torn shirt implying an inference that things "ought" to be a certain way or that someone broke or disturbed the object (Barret, et al., 1989; Kagan, 1981). When completing a difficult task children sometimes smile whether or not an adult is present (Kagan, 1981; Stipek & McClintic, 1989;). And children, sometime in the middle of the second year, begin to comfort another person in pain or distress (Dunn, 1988a; 1988b; Hoffman, 1982; Radke-Yarrow, et al., 1985). What happens in the second year may be the basis or rudimentary forms of what we will later call the child's moral system, be it moral "judgment" or moral "sentiment". And these occurrences suggest that early feelings and ideas about good and bad may not merely develop through parental teaching but also, and perhaps primarily, emerge through natural interest.

At What Age Morality?: Traditional Views

If the very young child shows moral awareness and empathy accepted beliefs in three related areas, child development, moral development, and Western philosophy, are challenged.

Child development research has examined early moral development in terms of how parents teach children rules and get them to comply. It has focused on techniques of childrearing; how to raise "good" (well behaved) children, not necessarily "good" (concerned and empathic) children. When the research focussed on the child rather than the adult, the main interest is in when and how a child internalizes parental controls in order to monitor his or her behavior. Such internalization was not thought to occur until around the age of 4 or 5 years. Psychoanalytic theory, also concerned with internalization of parental controls, placed the beginning of moral awareness at around age 5, when the oedipal complex was resolved. Psychoanalytic theory also emphasized the selfish and demanding qualities of the infant, viewing infants as sexual, aggressive creatures ruled by instincts. Cognitive psychologists, following Piaget (1952), were convinced that before the age of seven, children were cognitively egocentric. Social psychologists like Lewin (1942) believed the child to be incapable of ever weighing the needs of others as much as his or her own needs until he or she was eight years old. It was, however, moral theorists who closed the case on the very young child.

Moral psychologists like Kohlberg (1981) who, for the most part, used Piagetian theory and neo-Kantian philosophy as a base, envisaged moral development as emerging parallel with the development of reason. They understood moral awareness in the preoperational child as awareness of what authority figures say is right or wrong. These theorists did not discusss what might be discovered in the practically pre-verbal child.

Moral psychologists also avoided research that considered emotions such as love and affection as developmental fuel. Turiel (1980), echoing Piaget, states that reasoning is at the core of an individual's moral functioning. An interdisciplinary group of

scholars at a conference on morality (Stent, 1980) also concluded that the prerequisites for morality are the ability to differentiate self and other, to infer feelings, and to recognize goals, intentions, and consequences of one's actions all of which are cognitive skills. Such an emphasis on reasoning automatically points the researcher to the older child.

Morality in the Young Child?

Researchers who have studied morality in the young child looked at three aspects of morality: prosocial behavior, empathy, and an awareness of standards.

The research indicates that even very young children exhibit prosocial behaviors. They help care for baby siblings (Dunn, et al., 1981). After the first year they share, help, and attempt to protect other children (Radke-Yarrow, et al., 1976; Rheingold and Hay, 1980). In fact, the number of helping acts (out of total number of peer social contacts) is higher for eighteen- to thirty-month-olds than for any other age group in a sample of eighteen-month-olds to five-and-a-half-year-olds (Bar-Tal, et al., 1982). There also seems to be an increase in nurturing acts between eighteen and twenty-four months as compared to between twelve and eighteen months and between twenty-four and thirty months (Rheingold and Emery, 1986). The detailed descriptions of these behaviors and the emotions accompanying such acts suggest that children are not merely imitating, practicing learned behaviors, avoiding punishment, nor seeking reward. The increased freqency of these acts implies a heightened interest in this area in the second half of the second year.

Empathy also appears to emerge in the second year. Researchers have pointed to "affection and gentleness" (Valentine, 1938), weeping when another child cries (Tiedemann, in Murchison

and Langer, 1927), "sympathy" (Gesell, et al., 1940; Murphy, 1942). Eisenberg-Berg (1982) notes that between 12 and 20 months children will respond to distress by orienting to another. Hoffman (1982) observes that during the second year toddlers cry less, show empathic distress in facial responses, begin to make tentative approaches to victims, and sometimes attempt to comfort others in distress. Dunn and Kendrick (1979) observed a few incidents of empathic responding in children as young as 14 months. Zahn-Waxler and Radke-Yarrow (1982) found that eighteen-month-olds respond to an average of one third of all distresses. The greatest increase of altruism in response to a distress situation was between sixteen and twenty-four months. Positive initiations to others in distress began to appear at twelve months and they included tentative pattings or touching the person. These contacts became more differentiated and frequent by 18 to 24 months.

Research regarding the development of an awareness of standards has focused primarily on the teaching of values and self-control to children so that they can live by accepted social rules. Researchers have primarily analyzed maternal control techniques for over two decades (Minton, et al., 1971; Olim, et al., 1967).

Some of the literature on standards focussed specifically on the child's growing ability to inhibit his or her actions and comply with parental desires (Erikson, 1963; Flavell, 1977; Gesell and Amatruda, 1945; Vaughn, et al., 1984). The developmental advances in the child regarding compliance and self-regulation are related to moral development because these two landmarks signify a child's capacity to learn and follow the family's, if not society's, manners and mores. It has been said that the second year marks the onset of socialization pressure (Maccoby and

Martin, 1983), yet this pressure may depend on natural changes in the child.

Kopp (1987) claims that during the second year the integration of cognitive, social, and communicative abilities (Nelson, 1979), the beginning of representational thinking (Bruner, 1972; Piaget, 1962), and recall memory (McCall, et al., 1977; Piaget, 1962) enable the child to control him or herself. But a study by Vaughn, et al., (1984) sees eighteen-month-olds as restraining themselves only fleetingly in experimental tasks.

The self-control research takes the limited view that self-control is merely a reflection of the desire for autonomy and is a result of the internalization of the caregiver. Kagan's (1981) research suggests a natural interest in standards, and thus a view that children's self-control has internal motivation apart from caregivers' teachings. In his studies, children, aged 1 to 2, displayed concern over an object or event that violated something adults regard as normative, and showed distress at a broken toy or a torn piece of clothing while no fourteen-month-old did. Children's speech first referred to standards after 19 months, and they expressed distress after an examiner modeled an act that was too difficult for the child to imitate. Kagan suggested that these children were aware of a standard of performance and were upset because they could not meet it. Largo and Howard (1978) showed that children over 15 months can judge whether a task is "too easy" for them.

Developmental Changes in the Second Year of Life and Their Contribution to Moral Concern

There are several changes of the second year of life whose emergence and development may play a part in the promotion of moral concern at that time. Kagan (1981) suggests that some are

inevitable consequences of maturational events in the central nervous system. McCall (1979) agrees, and describes the second year of life as a period of great discontinuity, a time of transitions when "canalization" weakens.

There are significant cognitive changes in the area of symbolization (Fenson, et al., 1970; Kagan, 1981; McCall, 1979; Nicolich, 1977; Piaget, 1952). There are significant changes in social play marking a transition from self-directed to other-directed imaginary play (McCall, 1979) and indicating that play with peers exceeds play with mother or alone beginning at eighteen months and culminating at 24 months (Eckerman, et al., 1975). There is also a major increase in the frequency of imitation (Freud, 1905/62; Guillaume, 1926/71; James, 1890; Piaget, 1952; Preyer, 1888; Yando, et al., 1978) as well as the emergence of deferred imitation (Kuczynski, et al., 1987; Meltzoff, 1985; McCall, et al., 1977; Piaget, 1952). Children in the second year suddenly make many cognitive inferences they were formerly unable to make (Kagan, 1981), and are able to infer another's visual perspective (Butterworth, 1980; Lempes, et al., in Cox, 1980; Liben, 1978; Masangkay, et al., 1974). They begin to infer attitudes, preferences, and feelings (Rheingold and Emery, 1986).

These cognitive changes may contribute to the emergence of moral concern in several ways. Symbolization is necessary for categorizing and judging acts as right and wrong. Research on imitation (Kuszynski, et al., 1987) indicates a peak in the imitation of affect in the second year, which suggests perhaps a natural interest or focus on others' feelings at this time. The ability for deferred imitation suggests a capacity for grouping events or behaviors in categories such as right and wrong. The capacity for making inferences may provide a basis for

understanding standards, for we infer that when something is broken, someone broke it. And the inference of another's feeling or perspective is a major aspect of empathy.

Significant changes in language development also occur during the second year and may correlate with or promote moral concern. Children begin to call attention to attributes of objects, first use psychological state words, and first use moral language such as "good", "bad", "naughty", and "nice" (Bloom, et al., 1975; Kagan, 1981). Although there has been disagreement over whether language regarding internal states suggests that a new capacity emerges (Asch, 1952; Bretherton, et al., 1981; Huttenlocher, et al., 1983; Slobin, 1985), internal state words begin to appear at this time (Bloom, et al., 1975; Hood and Bloom, 1979). Linguistic evidence also exists which supports the emergence of a self in the second year (Bloom, et al., 1975; Bretherton, et al., 1981; Gesell, et al., 1940; Kagan, 1981; Rheingold and Emery, 1986). And the expression of self-awareness through words and phrases such as "I/me/mine" and "I need/want/have" may be a crucial aspect in the growth of awareness of standards, particularly of whether one is violating or adhering to a parental standard. The new language also suggests an awareness of a self as having states, needs, and intentions.

Self-awareness emerges in the second year and may underlie as well as motivate moral concern (Hoffman, 1975; McDougall, 1923; Sagi and Hoffman, 1976). Self-awareness has been observed through visual tasks (Amsterdam, 1972; Lewis and Brooks, 1978), in linguistic tasks (Bloom, et al., 1975; Bretherton et al., 1981), and in the obstinacy of children in the latter half of the second year (Buhler, 1935) which may motivate confrontations over standards. The child in the second year begins to differentiate self from other (Mahler, 1968), to understand the self as an

active controlling agent (Kagan, 1981; Watson and Fischer, 1977), and to determine goals independent of and/or in opposition to mother (Sander, 1975). The self-assertion as well as awareness may be a necesary motivator in mastering right and wrong and in exploring the feelings and intentions of others so necessary to the empathic response.

Research also describes the second year as a time of great emotional development and lability (Emde, et al., 1978; Malatesta, 1982). Infants appear to be adaptively insensitive to aversive information (La Barbera, et al., 1976) which suggests that as canalized behavior decreases, the child in the second year of life may be confronted or "flooded" with aversive emotional experiences (Izard, 1978). This may heighten a child's awareness of parental prohibitions. Empathy may be a state that is an "unpleasant affect" (Hoffman, 1975; Kagan, 1984) thus motivating a person to respond with concern for another in distress in order to be more personally comfortable. Anxiety in response to social disapproval or task failure and uncertainty accompanying encounters with discrepant events might be emotions that develop in the second year and which underlie morality (Kagan, 1971; 1981; 1984).

The Current Study

The studies cited earlier show the emergence of prosocial behavior, empathy, and awareness of standards in the second year of life. They provide, however, little information about the social context in which the beginning moral sense arises. Factors such as mother-child conversation, family and cultural rules, elaboration of narratives, and direct teaching need to be examined to flesh out the real situations in which, once moral concern arises, it is dealt with and shaped. Researchers do not take advantage of the rich opportunities of home observation and merely

count total responses with too little regard for the fact that responses happen over time and are organized sequentially (Schaffer, 1979).

Using a case study approach, such as that common in language acquisition studies, this research include frequent and longitudinal observations of four toddlers and their mothers at home over a period of eight months. The data obtained address the following research questions:

1. Does moral concern develop slowly throughout the second year or does it emerge suddenly, and if it emerges, is it at a similar time across subjects? Is there a specific order in which behaviors indicating moral concern arise? Emergence, as opposed to gradual development, and concordance between subjects of order of emergence would suggest a "natural" basis to moral concern.

2. What is the relation to the emergence of moral concern to two developmental achievements of the second year: a) the capacity for making inferences, and b) language acquisition? If the emergence of moral concern depends on these capacities it would suggest that early "moral" responses are more profound than mere imitative or attention-getting responses. It would also specify aspects of biological maturation that may contribute to moral development.

In addition to rate of language acquisition, the acquisition of inferential abilities and feeling state communications and the development of verbal communication about moral concerns are identified. What communicative resources for expressing moral concerns do these children acquire in the second year of life? This study will locate communications about morality in their behavioral and situational contexts, thus examining the contexts in which moral emotions derive their meaning for the child.

3. Do mothers' responses to their children prepare for

and/or motivate developmental changes in their children or do their responses follow their children's developmental changes? Little research has been done in describing the nature of early socialization for moral concerns. It is thus of interest to this study to examine what verbal and nonverbal responses from mothers enter into the behavioral and verbal displays of their children with regard to morality and what part such responses play in the socialization for moral feeling or understanding in the second year of life. Do mothers start to explain their own needs to their children before or after their children show some incipient understanding of the needs of others?

The naturalistic study of children's moral development is crucial at this stage in the field. While the more empirical approaches yield tentative answers to the broader questions outlined above, observations in the home help us to put those findings in a context, to understand the process of the development of moral concern and the environmental contribution and response to changes in the child. While we attempt to answer the broad question of whether early moral concern appears naturally or in response to socialization pressure, we also seek, in the detailed descriptions of "moral" interatctions, to understand what <u>is</u> morality when it first appears, is there an emotional component, and how is it responded to?

II. Methodology

<u>Subjects</u>

Four children and their mothers were observed for approximately eight months. At the beginning of the study the four children were 13, 13 1/2, 14, and 14 1/2 months old. Previous research had indicated at these ages no significant moral

awareness had emerged, and a checklist of child behaviors common to the age was administered prior to the study to insure that the behaviors to be observed had not yet emerged. No child had used the words "good" or "bad" nor any internal state words. No child had teased another child, shown concern when mother was upset or hurt herself, given mother something she needed without her having to ask, said "no" to him or herself, nor shown restraint when doing something forbidden.

The four children were all first-born, only children to guard against socialization effects of siblings. The effect of other caregivers was also controlled by choosing children whose mothers did not work and whose fathers were away most of the day. The mothers and children were located through old membership lists of a center which provides pregnancy exercise and childbirth classes.

The four families who were chosen were fairly homogenous to control for a number of factors that might interfere with development and because this was a very small, detailed exploratory study. They were all well educated, Caucasian, two-parent families of similar socioeconomic status.

Data Collection Procedures

Observation sessions occurred every three to four weeks for approximately 2 1/2 hours. The time of each session was the same so that frequencies of acts and behaviors could be compared between subjects. Each child was seen either 12 or 13 times over the 8 to 8 1/2 months observation period, excluding the first "get acquainted" visit which occurred in order to accustom both mother and child to the researcher.

The researcher was mildly interactive throughout the observation sessions. Although she rarely initiated interaction with the child, if the child initiated interaction she would

respond appropriately, for example, reading a book the child brought to her. The researcher also conversed freely with the mother during the observation if the mother so wished.

The researcher recorded into an audio-tape recorder a running commentary of the child's acts and vocalizations.

Mothers also wore audio-tape recorders and microphones so that their comments to the child could be later transcribed and analyzed. This way one could monitor if a mother introduced a moral issue as a topic of discussion, changed her educative or disciplining techniques, or responded to different violations depending on or prior to new developments in the child.

Both mother and child were blind to the purpose of the study. There was no evidence that the children knew what the researcher was coding. At the end of the study the mothers were asked what they thought the research was about. One had no idea, another guessed language development, another guessed mother's reactions to their children, and Hazel's mother guessed, "something to do with morality". Her awareness of the purpose of the study did not seem to make her interaction with Hazel very different from the other mothers' interactions with their children as can be seen in the results section.

Procedure for Coding the Observer's Tapes

Transcripts of the researcher's comments were reviewed for all incidents or comments relating to the development of empathy and transcribed verbatim elsewhere. Any incident relating to the development of moral awareness was counted and categorized. An incident was defined as an action of the child or an interaction between mother and child around a "moral" issue such as not putting crayons in one's mouth. The coding categories were divided into those that were dependent on the child speaking and

those that were not. This differenciation permitted a later check to insure that the child's moral awareness or the researcher's coding of the child's moral awareness was not a result of a child's ability to express his or her moral awareness verbally.

Observations were coded for the following child behaviors. Examples of verbal and nonverbal (when applicable) behaviors in each category follow :

1. Proud looks, achievement smiles, statements of accomplishment.

   Hazel, putting puzzle pieces into holes, turned to the researcher and said, "I'm showing you. I do it in the holes." She then smiled proudly (22 months).

   Sasha's mother asked Sasha if he wanted to ride his hippo, saying "You can push all by yourself." He climbed on, pushed himself, and smiled proudly (19 months).

2. Awareness of, interest in, and exclamations about flawed objects and discrepant events.

   Shane also saw a bit of felt torn from the bottom of a music box. Full of concern he brought it to the researcher saying, "Look, look, look" (15 months).

   Shane found a crack in the dining room table and kept moving his finger back and forth in it (15 months).

3. Awareness of a violation, whether before transgressing, after transgressing, after mother points out the violation, and independent of whether or not the child restrains him/herself.

   Sophie began to color on her mother's guitar with a crayon. Her mother made a prohibitory comment and Sophie looked at the crayon and said, "Uh oh, uh oh, uh oh, uh oh." She then brought the crayon to the examiner (17 months).

Sophie crumpled a piece of tape and held it to her lips, as if she were about to put it in her mouth. She looked at her mother and then smiled (17 months).

4. Awareness that something is potentially harmful.

Hazel pointed to a pipe and asked her mother, "hot?" (17 months).

Hazel also picked a tack up off a toy store floor and gave it to her mother (21 months).

5. Using moral vocabulary; labeling things "good", "bad", "yucchhy", "garbage"; questioning or reciting a rule.

Hazel recited a rule to her mother after her mother told her, "We don't throw things." Hazel replied, "And we don't hit people" (20 months).

6. Saying "Uh oh" in response to accidents and spills or with no particular reference evident. ("Uh oh"'s in response to flawed and discrepant objects were coded under category 2 as verbal responses.)

The behaviors were summed for each child for each session and frequencies were computed to discover if there was an increase at a certain age or relative to other development such as inferential or linguistic abilities. Frequencies of non-verbal behaviors were also derived and plotted in order to determine if the researcher was merely responding to the child's ability to express his or her interest in moral issues.

Reliability

Inter-rater reliability was assessed. A university professor

of developmental psychology reviewed the transcripts of the observer's running commentary on two of the four children and counted every occurrence of a behavior related to moral concern for each session. A Spearman rank order correlation was performed on the two subjects revealing a rho of .67 for Hazel and a rho of .75 for Sophie. A z test indicated that these two rho's were significant at the $p < .05$ level.

Procedure for Coding of the Mothers' Tapes

A coding system was designed to examine whether mothers, through their communications, were influencing their children's development. They may have increased communications about standards, changed the intensity of their prohibitions, began giving reasons for prohibitions, or began giving compliments on "good" behavior. If any of these changes occurred prior to a change in frequency of the child's behavior, we would have reason to assume some influence.

Percentages of "turns" in which mothers communicated something related to moral awareness were derived. A "turn" of speech was defined as a communication separated by either 3 seconds of silence, another person speaking, an abrupt change in subject matter, or an action on the part of another person that calls for a verbal response from the other. The larger unit of "turns", rather than utterances, was used because the coder worked directly from tapes, because the smaller the unit the greater the chance of error, and because only a small percentage of mothers' communications were morally related.

A list of morally related communications was derived from previous research and the categories were described in a way compatible with what was coded regarding children's behavior.

Observations were coded for the following maternal behaviors. Examples and explications follow:

1. Achievement related remarks.

   Frequently mothers would say "good" when a child completed a task or "that's right" when a child's performance on some task was correct.

2. Discrepancy related remarks.

   If a mother pointed out a flaw in an object or something "different" about the environment it was counted. And every time the mother said "uh oh" it was also counted and coded as to whether it pointed to a discrepancy in the environment, a flaw, or simply an accident.

3. Transgression related remarks.

   The coder noted any turns in which the mother prohibited the child from doing something and any turns in which the mother supported her prohibition with a reason, explanation, or justification.

   The coder also noted when the mother reinforced "good" behavior after a prohibition. For example, Sophie at age 18 months attempted to water the plants. Mother said not to several times and that was counted as a prohibition. Her mother went on to tell her "The plant's not thirsty" which was counted as an explanation. Sophie put the watering can down and mother said "Good" which was counted as a reinforcement for a prohibition.

4. Empathy related remarks.

   The coder noted any communications that were nurturant or

affectionate, any reference to internal states, and any expression of sympathy towards another, as well as requests that the child show some sympathy toward another.

Hazel's mother showed her a stuffed mouse with a missing eye and said, "Poor mouse."

All of the moral-awareness turns (not empathy-related) were counted in one category and a percentage was derived for each session. The same was done for empathy-related turns. Percentages were also derived for individual items such as "uh oh"'s and "achievement related remarks" so that any sudden increases could be noted and compared with increases in the child's behaviors. Frequencies were also derived as a clearer index of how many prohibitions each child heard in day to day life.

Post Observation Session Measures

Post-tests. The checklist described earlier was also administered after every session to determine whether the children had displayed behaviors relating to moral awareness between observations. It served to keep a running log of when mothers noted certain concerns and behaviors emerging. Because the display of concern over someone's distress is a difficult phenomenon to observe, it was important to have maternal reports of the child's first expression of empathy and a description of the situation in which it arose. We also wanted to determine whether there was any consistent order of emergence among empathy and other morally-related behaviors.

Language Inventory. A language inventory constructed by

Elizabeth Bates and colleagues (Bates, et al., 1988) was used to monitor child language development. The Bates Inventory is a list of words learned in the second year of life which is divided into categories such as "animals", "household items", "places", "actions", etc. Mothers completed the inventory at alternate sessions.

A language inventory was necessary in order to examine any effect language development may have on the development of moral concerns, and as a check on the researcher's observations. If the researcher were merely responding to the child's ability to express verbally concerns about moral issues, the index of "awareness incidents" would increase at a rate matching language development. Further, the development of moral awareness may be dependent on the emergence of some linguistic capability or both may develop similarly because they are mediated by a common process.

Number of words was counted for each session that the inventory was completed in order to compare the changes in word expression with changes in the emergence of moral concerns. When the children began to use internal state language, the words they used were recorded and counted, for such a skill may be related to the development of empathy. In addition, use of "morally tinged" words, such as "good", "bad", "nice", and "yukky" were counted in order to note the changes and compare with the emergence of morally related concerns.

Inference Tasks. Because the emergence of moral understanding may depend on some cognitive prerequisites several tasks designed to measure the development of one domain of cognition were administered. The tasks were geared to measure inference-making ability because the capacity to infer internal

properties as well as feeling states seems to be a basis of empathy and moral awareness. We wanted to monitor the acquisition of such abilities relative to the emergence of behaviors marking moral awareness.

The inference tasks were administered at the end of alternate observation sessions so that discussion or further play with the toys was not encouraged. The five procedures were designed to measure 1) relational inference, 2) linguistic inference, 3) inference of "wrongdoing", 4) inference of another's intention, and 5) part/whole inference. The first two of these tasks were administered in another form by Kagan (1981). The other three were constructed for the current study.

III. Results

Awareness of Standards Data

There were a total of 319 incidents for all 4 subjects implying awareness of a standard. The incidents were distributed among six categories derived from the longer list by combining similar categories. For example, interest in a flawed object or discrepant event was combined with commenting on a flawed object or discrepant event. The first four categories represented about 80% of the incidents (see Table 1.)

Insert Table 1 about here

There were striking differences in content of expression of moral concern, emphasizing either awareness of transgressions, interest in the flawed and discrepant, and verbal labeling.

It is not clear why these four children manifested their awareness of standards in different ways. Perhaps as a budding awareness surfaces, the mode of manifestation is determined by what a mother responds to.

The most significant finding was that the behavioral signs of awareness of standards incidents peaked at the same age, between 17 and 18 months, for all four children. Moreover, following this peak, all four children showed a decrease in the number of behavioral incidents reflecting an awareness of standards. It was possible to compare the number of incidents for each child rather than percentages over time because the observer spent the same amount of time during each visit.

It is suggested that when a new competence emerges a child "practices" or tries it out in a variety of situations. Once it is "mastered", it loses some salience. This idea can explain why the peak, or point of greates acceleration, was followed by a decrease. The children tested their new competence during a relatively brief period and then moved on to other issues. It is also clear that the data do not confound expressive linguistic abilities with behavioral manifestations of an awareness of standards for one would expect a gradual increase in the awareness of standards to parallel the increase in linguistic expressive abilities. This did not occur.

Figure 1 shows the number of incidents in which Shane showed an awareness of standards over the eight months. The broken line indicates the number of incidents that did not include verbal expression. Comparison of the two lines on the graph shows that the observer was not confounding linguistic expressive ability with awareness of standards. The contours of both lines are similar. The peak at 13 1/2 months is of interest. During this visit Shane had been playing in the dirt and his mother had told

him "No" several times, yet he continued to play in the dirt, saying "No, no, no, no, no" to himself as he played. There were other incidents that day when Shane's mother took something away from him and said "No". Shane became distressed and screamed, "No" back. In these incidents it was unclear whether Shane knew he was transgressing even though he used the word "no" for he could have been imitating, merely repeating what his mother had said in response to those situations. It is also possible he was saying "no" because he didn't want his mother to take him away from what he was doing. In our coding system we coded these as showing awareness of standards even though a qualitative examination of the incidents indicated awareness was not probable. This explains the early peak and these ambiguous "no"'s only occurred at an early age when the word was first learned. At 17 months, the largest percentage of incidents involved situations where a transgression had been committed.

Figure 2 shows Sasha's development of an awareness of standards. The number of incidents shows a significant increase at 18 months. When one looks at only those incidents where verbal expressions were excluded (the broken line), that peak flattens somewhat and a slightly larger peak occurs at 19 1/2 months. At the peak at 18 months the largest percentage of incidents was for the category "uh oh"'s for accidents. The word "uh oh" was not a new word for Sasha; he had been saying it for accidents since 16 1/2 months. This fact suggests that there was some heightened interest in accidents at this time (rather than acquisition of a new word), and that because the word "uh oh" was already at his disposal, he used it to express his interest.

Figure 3 shows that the number of incidents for Sophie peaked just before 18 months. The broken line indicates the number of incidents in which the child did not use any verbal expression in

exhibiting an awareness of standards. For Sophie, this line parallels the contour of the total awareness incidents line, however, once again, the peak is less pronounced. Although the largest percentage of incidents was for transgressing, this was not the case for the visit in which the incidents were the highest. On this visit, the sudden increase in incidents was due to an increase in using the word "uh oh" for accidents and for noting flawed objects, as well as an increase in achievement smiles.

Figure 4 shows Hazel's peak just after 17 months. When verbal expressions are included (the continuous line) Hazel does not show as pronounced a decrease after the peak. When verbal expressions are excluded (the broken line), the contour remains the same but, unlike Sasha and Sophie, the peak remains pronounced. There is also a new increase at around 21 months. There was no particular category that comprised a major part of the incidents on this peak visit; the nine incidents were from various unrelated categories.

The fact that the number of incidents peaked at about the same time for all four children suggests that something is happening at this small window in time. One might argue that too many of the incidents for the peak visits were "uh oh"'s the child uttered about flawed objects or household accidents and that "uh oh"'s do not really reflect an awareness of standards because they are ritualized, (e.g. whenever something drops the child says "uh oh".) "Uh oh"'s do, however, express concern, even ritualized, and are available to the almost pre-linguistic child. Two of the children in the study were saying "uh oh" long before the peak visit, yet something happened during the month of the peak visit prompting them to say "uh oh" that much more. Furthermore, Hazel peaked at the same age as the three other children, yet she used

the word "uh oh" rarely. When awarenes of standards incidents were examined excluding all incidents in which the child said "uh oh" the peaks remained.

Two of the children showed a less pronounced peak when verbal expressions were excluded. One might argue therefore that the data reflect only growing linguistic ability or the ability to express concern verbally but this seems unlikely because of the decrease in incidents for three of the four children when language ability is still improving. Still, it is not surprising that the observation of the developing awarenesss of standards should be somewhat dependent on the expressive abilities of children. Language is one mode of communication the child has to express an awareness of standards.

An additional check on the validity of the coding is possible through the questionnaires that the mothers completed at the end of each session asking whether their child had, during the last month, achieved a number of different competences. Every mother reported some awareness of standards before the peak date. Their observations suggest that the observer was noting events that the mothers had seen and interpreted similarly. Further, the mothers were observing an awareness of standards before it "peaked" in the child.

Insert Figures 1-5 about here

We wanted to determine whether the peaks accurately described a change in the children or whether they are illusions of adjacent scores and stray points. Two point moving averages were calculated in an effort to smooth the plots. For three of the

four children the peaks remain, suggesting a true change around 17 months.

The Emergence of Empathy in Relation to Awareness of Standards

Although several investigators report observing empathic responses in children around the middle of the second year (Dunn and Kendrick, 1979; Dunn and Munn, 1986; Hoffman, 1982; Kagan, 1981; Radke-Yarow, et al., 1985), such responses are not commo. even in an intensive longitudinal study such as the one undertaken. Opportunities to express empathy (such as mother or another child getting hurt or upset) do not arise often in normal daily routines and less so when an observer is in the home. Moreover, Radke-Yarrow, et al. (1985) report that children this age show empathic behavior for only about one third of distress situations. In spite of its suspected biases, mother's report was relied on to determine when the child began to express empathy, in rudimentary form. At the end of each session, as part of the questionnaire used before the study started, the mothers were asked, "In the last few weeks, has your child shown concern for you when you've hurt yourself or when you've been upset?" The difficulty of tracking such a phenomenon was clear in their frequent answer that they hadn't been hurt or upset in the past few weeks.

According to the mothers' reports, all four children first expressed empathy toward their mothers within a three month interval, between 16 and 19 months. When Shane was 16 months old, his mother reports that when she was crying, Shane came up to her, gave her a "big hug" and said, "Mommy." She added that she could tell by the expression on his face that he wanted to comfort her. When Sasha was 19 months his parents were having an argument. According to mother she was screaming at Sasha's father and

crying. Everytime she looked at Sasha he would smile at her and say, "Hi." She claims that it was as if he were trying to cheer her up. Between 16 and 17 months Sophie patted her mother when she was crying. And Hazel's mother reported that at around 18 months Hazel expressed empathy. Mother and father were having an argument and mother was crying. Hazel seemed confused and upset at first, but afterwards she kept trying to give her mother a hug, saying "big hugs" repeatedly. That same week mother had fallen down the stairs. Every time mother subsequently passed the stairs Hazel would remind her to be careful. She reported that Hazel seemed concerned when she said this.

One can argue that the mothers are reading "moral sentiment" into their children's behavior, but one can also claim that it is often the mother who can determine the motive behind a child's behavior. Although the manifestation of empathy was different for the four children, these mothers observed the emergence of empathic behavior in a three month time frame suggesting a similar process for all four children.

Language Development and Awareness of Standards

Language skill did not seem to be a confounding factor in the fact that at 17 months all children showed a dramatic increase in awareness of standards. Linguistic ability increased steadily while awareness of standards decreased after the peak. Moreover, the finding was not a product of a language spurt occurring at the same time; language accelerates around two months after the peak. Figure 5 shows the number of words each child spoke at a given age. For Shane, growth was gradual until about 19 months when there was a dramatic increase from 221 to 396 words, two months after his peak in awareness of standards. Sasha, on the other hand, showed an increase in word acquisition after 17 months,

when, in the next two months he gained about 150 words. Between 17 1/2 and 18 1/2 months (the time of her peak in awareness of standards), Sophie showed no large gain. Hazel, a month to two months after her peak in awareness of standards, showed an increase of almost 160 words.

Thus only Sasha showed a change in vocabulary parallel to his peak in awareness of standards. The three remaining children acquired language more rapidly after their increase in awareness of standards. For Sasha, acquiring langauge related to standards may have prompted an interest in standards. For the other three, an awareness of standards may have prompted acquisition of related language.

Insert Figure 5 about here

Because the ability to empathize with another and the ability to infer standards may require separate competences, it was of interest to determine when these children acquired a vocabulary of internal state words. At the end of the study no child had a sophisticated vocabulary of internal state or "moral" words other than "good", "bad", and "nice". They used the following internal state words occasionally: happy, sad, hungry, thirsty, nice, sleepy, tired, mad, scared, good, and bad. The "moral" words all occurred much later than the peak in awareness of standards, at around 20 or 21 months for those children who used those words.

Figure 6 shows the number of internal state words the mothers reported for their children at different ages. For all children except Sasha the large increase in internal state words came after the major increase in awareness of standards. This increase also

comes before the time of accelerated vocabulary acquisition. It seems likely then that the children are differentially sensitive to internal state words available at the time their interest in standards peaks. It could reflect a heightened awareness of internal states/and emotions. It could also reflect a new capacity for making judgments or evaluations of their own actions and the actions of others; a capacity that promotes the acquisition of evaluative words.

Insert Figure 6 about here

Inferences and the Awareness of Standards

The inference tasks administered at the end of alternate visits tried to assess the emergence of inferential abilities. Because the children's attention could not be assured, the results can only be suggestive.

The relational inference task appeared to be too hard for these children. Only two children got both items correct two sessions in a row, and this occurred after 19 months. The results of the linguistic inference task were also ambiguous. While the two boys seemed to have mastered the task at 20 months, Sophie mastered it at 18 months and Hazel was able to do the task correctly from the beginning of the study. The part-whole inference task was also too hard for the children. Only two children answered three items correctly, and this occurred on their last visit.

The two remaining tasks were informative. On the task designed to emasure inferring another's intention, the child had to infer where the examiner hid a toy by watching her gaze. The

children began to pass the items consistently before the peak in awareness of standards. Both girls passed 2 of 3 items on or before the time when awareness of standards peaked.

For the task designed to measure inference of wrongdoing the children had to pick out the "bad" object when given a choice between a regular and damaged toy. They needed to associate "bad" with flawed, and possibly even infer that some person had been "bad" to tear or scribble on the object. This task was the most closely related to the awareness of transgression and the children were all able to make the inference at an early age. This inference might be a prerequisite to a more general concern with standards.

A Comparison of the Emergence and Peak Displays of New Competences

If order of emergence (or peak displays of relevant behaviors) is similar for the four children, it would further support the natural emergence hypothesis. Order (like content categories) differed by child (see Table 2.) It is interesting to note how each behavior can emerge early or late and every child shows a different order of emergence. This finding suggests that none of these behaviors are clear prerequisites of moral concern and that each may be a different aspect of the same underlying change in the second year.

Insert Table 2 about here

The Socializing Influence of Mother's Communications

It was of interest to determine the forms of socialization for moral awareness at this age, and whether the socializing

comments changed over time. If there was a change in the mothers' patterns of socializing moral concern, (such as an increase in comments about morally related issues or an increase in prohibitions), and it occurred before the peak in awareness of standards, one could argue that the changes in the children were a result of the changes in the mothers' communications and, possibly, their perceptions of their children.

Figure 7 shows the percentage of communication "turns" of each mother to her child related to moral awareness. Included were comments about achievement or standards of correctness, prohibitions, reasons for prohibitions, "uh oh"'s, warnings to be careful or watch out, and comments about discrepant events or flawed objects. For Shane and Hazel, the peak in mothers' communications relating to moral concern came at the same time as the child's peak in awareness of standards. For Sophie there was a slight increase in mother's communication after her peak in awareness. Only for Sasha was there a small peak in mother's communications on a session directly before the peak in awareness of standards.

For all four mothers there was an increase or peak in communications relating to awareness of standards when their children were 13-15 months old, 2-5 months before their children's peaks in awareness of standards. One might argue, therefore, that the mothers are promoting concern. However, this argument would presuppose a greater cognitive competence in the children than that which current research supports. Perhaps mothers do alert children to these issues early in the second year and children pursue these interests on their own. Subtler methods are needed to identify a transactional effect between mother and child over this period of time.

The mothers varied in how much they conversed with their

child on a given day. (Percentages were used for comparison to guard against effects of amount of speech.) One could argue that the number of times a child heard "morally" related communications from mother meant more than what percentage of her speech is such. However, frequency data show that for almost every child there is very little difference between the change in percentage of turns and the change in number of turns over time.

Insert Figure 7 about here

Surprisingly there were very few instances in which mothers used internal state language. They also expresed sympathy or asked the child to express sympathy minimally compared to other categories.

Children used the expression "uh oh" long before their peaks suggesting that a child needs an interest in those situations in which a phrase might apply before he or she increases usage of the phrase. It is significant that mothers did not use "uh oh" to point out flawed objects or discrepant events and almost never showed an interest in this area which suggests that this behavior, which was an important variable in the child's awareness of standards, was completely child initiated.

V. Discussion

The results of the study confirm previous research which suggests that in the middle of the second year, most children show behavioral signs of moral awareness that do not seem to depend on increased language acquisition nor increased maternal

communications in this area. Moreover, a major category of children's interest emerged that was not found to be present in maternal communications: interest in flawed objects and discrepant events.

Moral awareness appears to emerge in a way that suggests maturational processes. The children acquired and even practiced forms of moral awareness early, "uh oh"'s and "no no"'s, but their sudden focus came suddenly and after, at the 17-18 month period. This period seemed to be a high point in a process and the data can not fully answer what exactly occurs during this window in time which explains the peaks in awareness. The data also raise questions as to the nature of moral development after the peak. Qualitative data suggest a more "emotional" and "self-invested" comprehension of morally related acts and concepts (Lamb, 1989), however, it is difficult to generalize from so small a sample.

We can see the eighteen-month-old in somewhat the same way that theorists have seen adolescents. They note adolescents' intense concern with moral issues, the passion with which they reason about moral dilemmas, and their deep commitment to principles (Erikson, 1958; 1964; 1968; Kohlberg, 1969; 1981; Kohlberg and Gilligan, 1971). They suggest that adolescence is a critical time in the development of morality and that this is because adolescents are suddenly able to reason at an abstract level (Kagan, 1971; Piaget, 1952). Adolescence has also been seen as a time of emotional instability (Blos, 1967; Freud, 1958; Mahler, et al., 1975, Tanner, 1971).

We can look at what happens to the toddler in the middle of the second year in much the same way noting the toddler's rebelliousness, his or her tendency to confront parents around transgressions, the emotional instability, and the assertion of a newly found sense of self.

Whether emotional lability leads to a more intense interest in moral concern is a question researchers might address in the future. Teenagers and toddlers may simply feel more intensely at the sound of someone in distress, at failure to meet a standard of performance, or at the sight of a flawed object. Are such responses natural emotions, and does the child first experience such emotions in the second year. Unfortunately the methods used in this study could not even begin to address this question and the general question of to what extent emotional development is tied to emerging moral awareness.

The current study suggests further work in the field of moral development. We need to look at the period between 17 and 18 months and try to find an overarching concept or underlying competences for the change that encourages moral concern at this time. We need more intensive studies of emotions during the early years. We need to look at the lability of emotions and its effects over time and at a situational level. Now that we have identified this beginning period of moral awareness we need to look into the future to see what happens next. While this study identifies the age at which such moral awareness emerges and suggests that this awareness emerges "naturally", with very little encouragement, it only touched upon what may be the most crucial aspect of developing morality: the emotional urges behind young children's desire to help, to do well, and to do good.

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Table 1

Frequencies of Incidents Relating to Awareness of Standards for All Four Subjects

Type of Incident	#	%
1. Awareness of transgressing	78	24
2. Uh oh's	65	20
3. Interest in flawed/discrepant	62	19
4. Awareness of achievement standards	59	18
5. Labeling, using "moral" vocabulary	45	14
6. Points out danger	7	2

Table 2

Comparison of Age of Emergence or Peak Displays of New Competences

	Shane	Sasha	Sophie	Hazel
Peak in Awareness of Standards	17	18	18	17
First Sign of Empathy	16	19	16	18
Increase in Internal State Words	18	22	18	18
Passes Task III: Infers Wrongdoing	17	17	15	18
Passes Task IV: Infers Intention	17	15	18	15

Figure Legends

Figure 1. Number of Awareness Incidents per Session for Shane (Overall and Excluding Those Verbally Expressed).

Figure 2. Number of Awareness Incidents per Session for Sasha (Overall and Excluding Those Verbally Expressed).

Figure 3. Number of awareness incidents per Session for Sophie (Overall and Excluding Those Verbally Expressed).

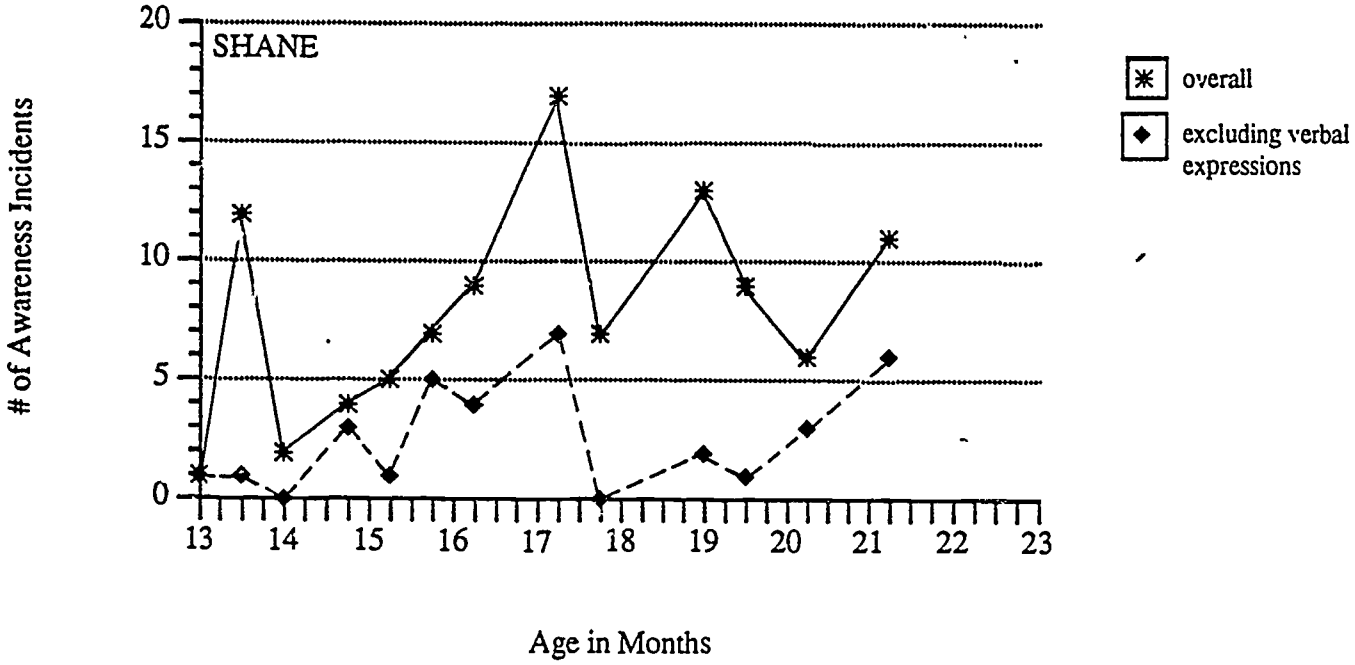
Figure 4. Number of Awareness Incidents per Session for Hazel (Overall and Excluding Those Verbally Expressed).

Figure 5. Language Development: Number of Words By Age of Child.

Figure 6. Number of Internal State Words By Age.

Figure 7. Percentage of Mother's Communications to her Child Relating to Awareness of Standards for All Children.

Fig. 1


SHANE
# of Awareness Incidents
20
15
10
5
0
13
14
15
16
17
18
19
20
21
22
23
Age in Months
overall
excluding verbal expressions

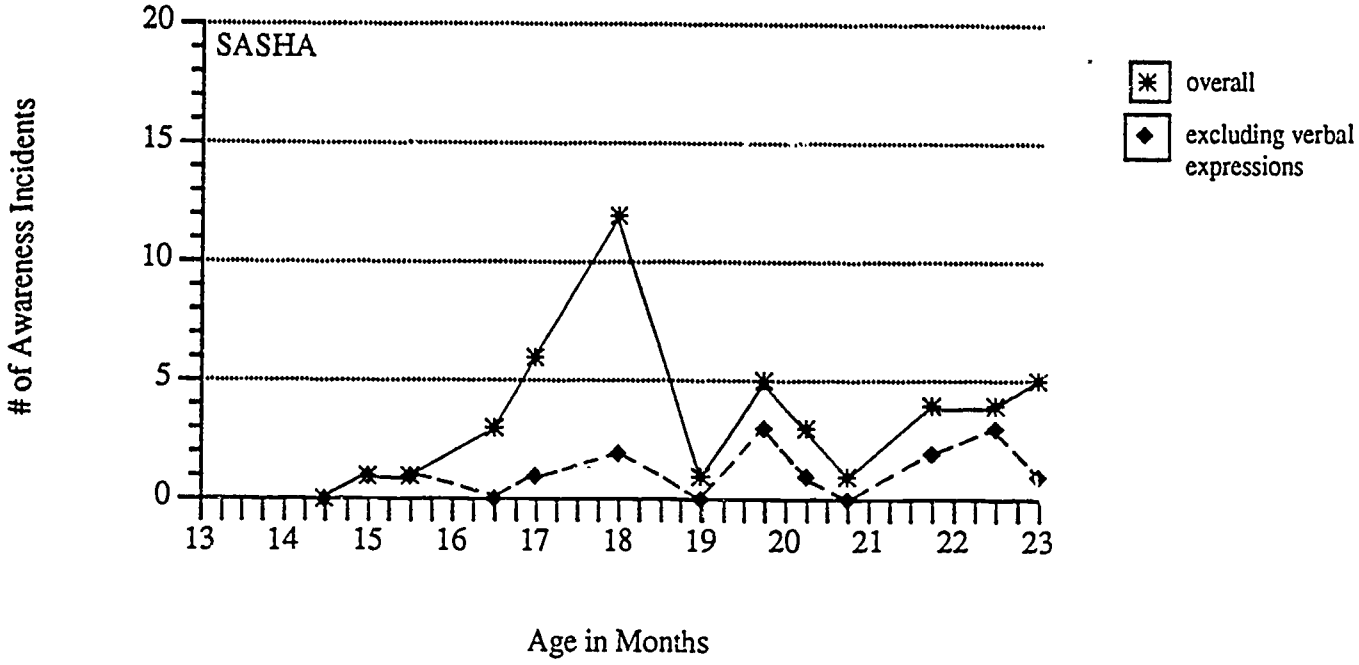

SASHA
# of Awareness Incidents
20
15
10
5
0
13
14
15
16
17
18
19
20
21
22
23
Age in Months
overall
excluding verbal expressions

Fig. 3

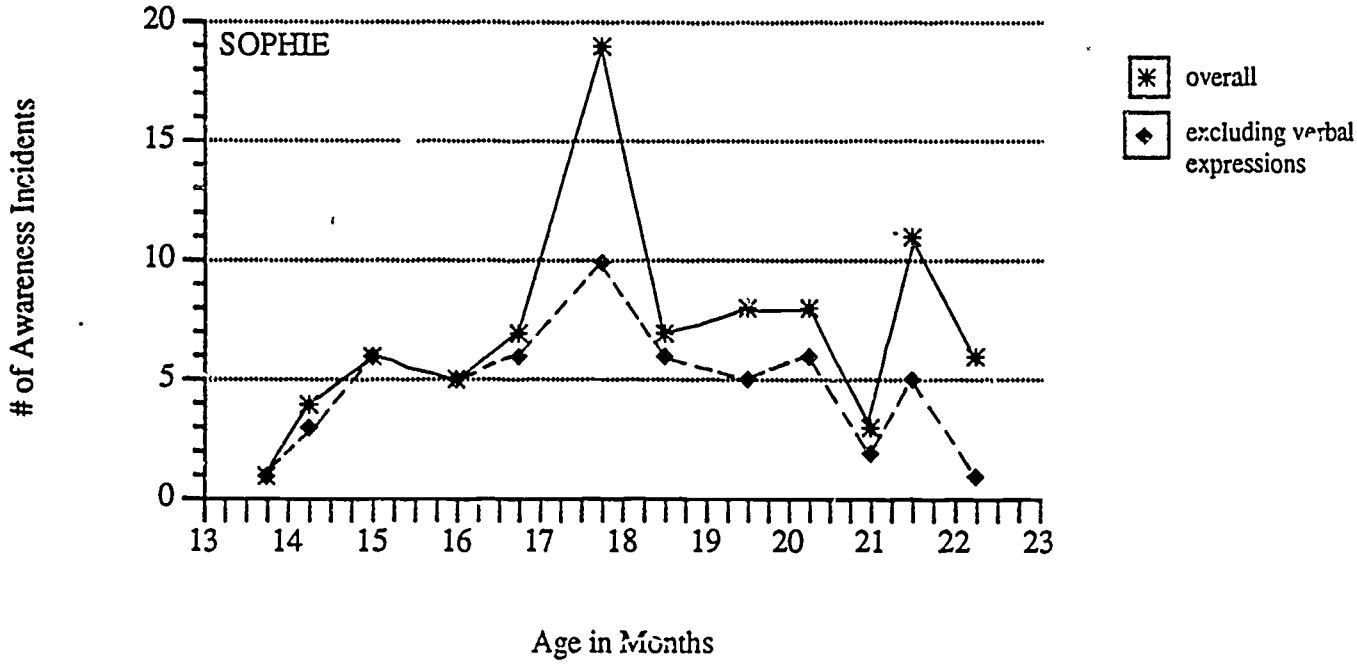

SOPHIE
# of Awareness Incidents
20
15
10
5
0
13
14
15
16
17
18
19
20
21
22
23
Age in Months
overall
excluding verbal expressions

Fig. 4

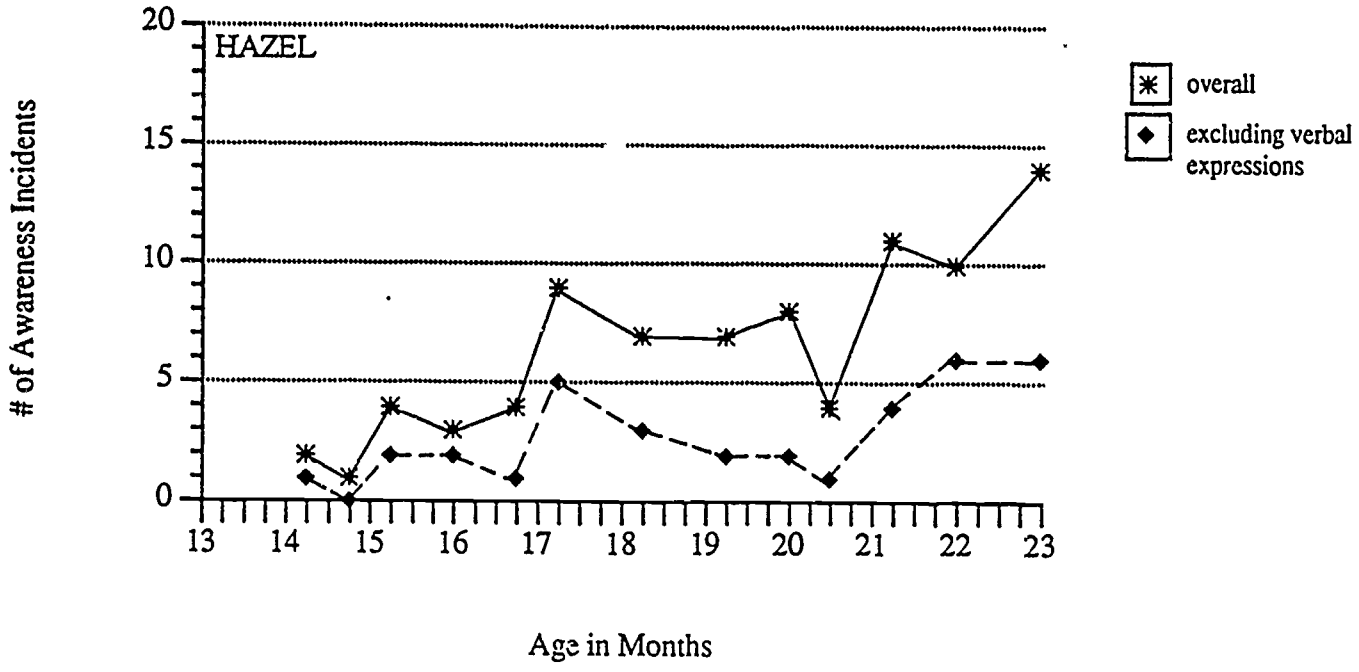
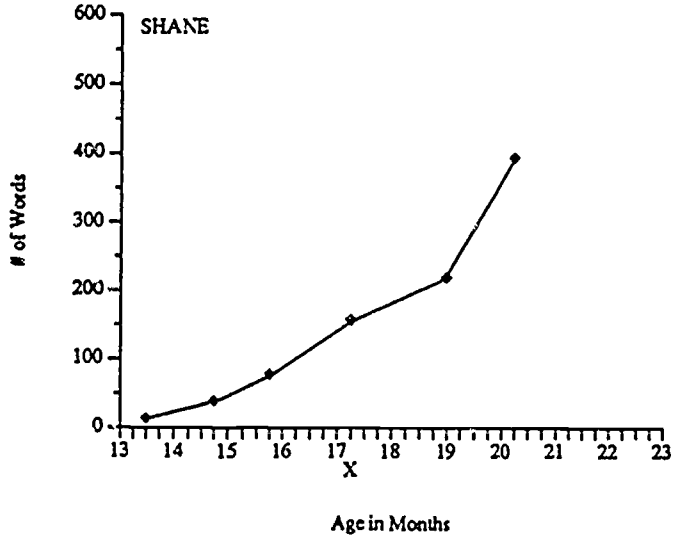
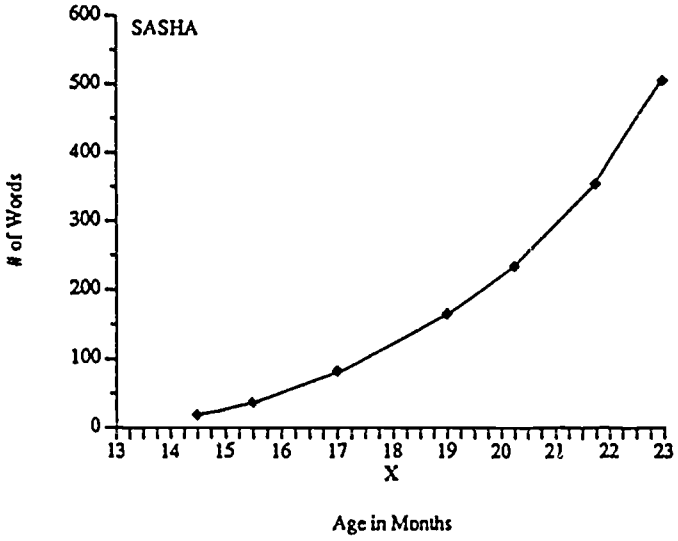
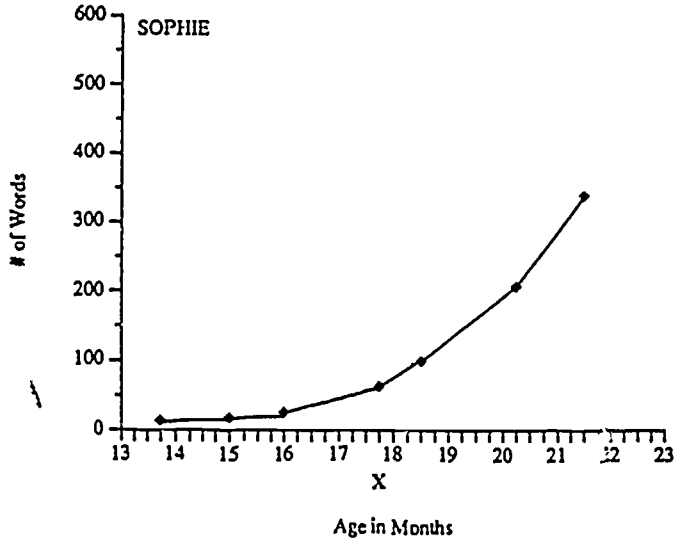

HAZEL
# of Awareness Incidents
20
15
10
5
0
13
14
15
16
17
18
19
20
21
22
23
Age in Months
overall
excluding verbal expressions

Fig. 5


SHANE
600
500
400
300
200
100
0
# of Words
13 14 15 16 17 18 19 20 21 22 23
X
Age in Months


SASHA
600
500
400
300
200
100
0
# of Words
13 14 15 16 17 18 19 20 21 22 23
X
Age in Months


SOPHIE
600
500
400
300
200
100
0
# of Words
13 14 15 16 17 18 19 20 21 22 23
X
Age in Months

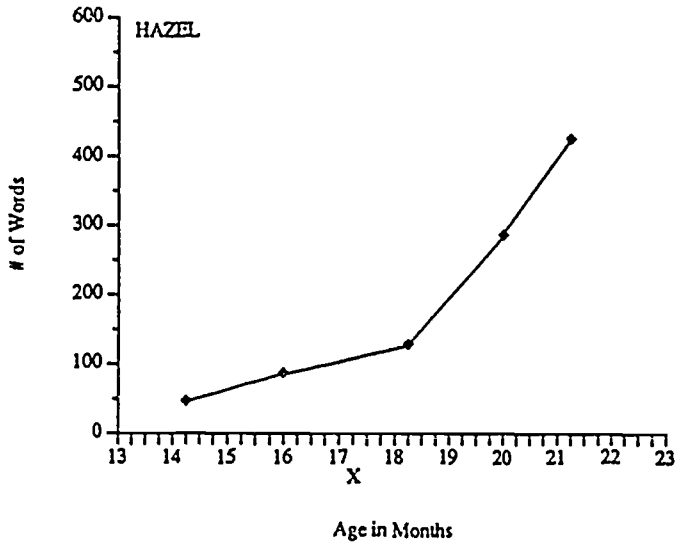
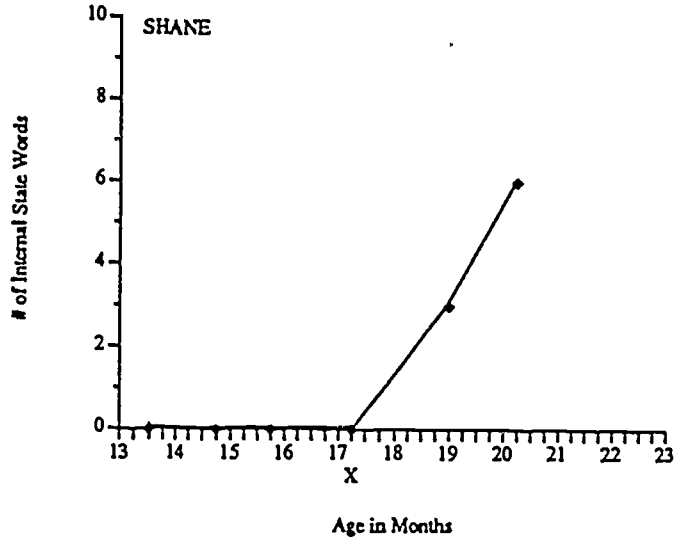

HAZEL
600
500
400
300
200
100
0
# of Words
13 14 15 16 17 18 19 20 21 22 23
X
Age in Months

Fig. 6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# of Internal State Words
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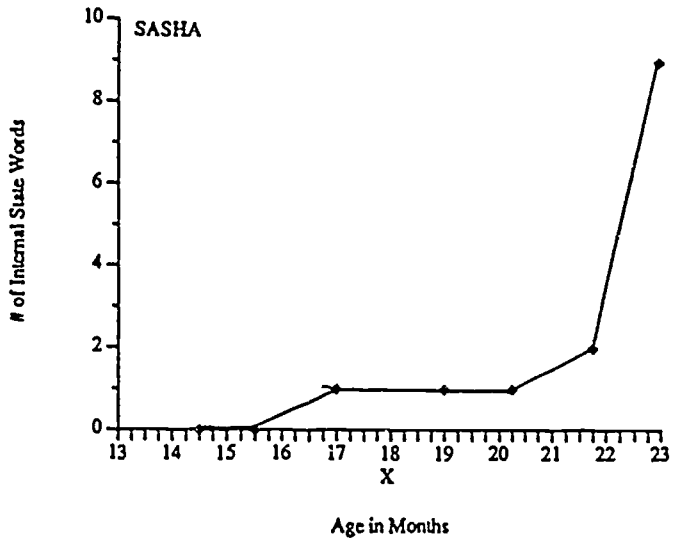
8
6
4
2
0
13 14 15 16 17 18 19 20 21 22 23
X
Age in Months


SASHA
# of Internal State Words
10
8
6
4
2
0
13 14 15 16 17 18 19 20 21 22 23
X
Age in Months


SOPHIE
# of Internal State Words
10
8
6
4
2
0
13 14 15 16 17 18 19 20 21 22 23
X
Age in Months

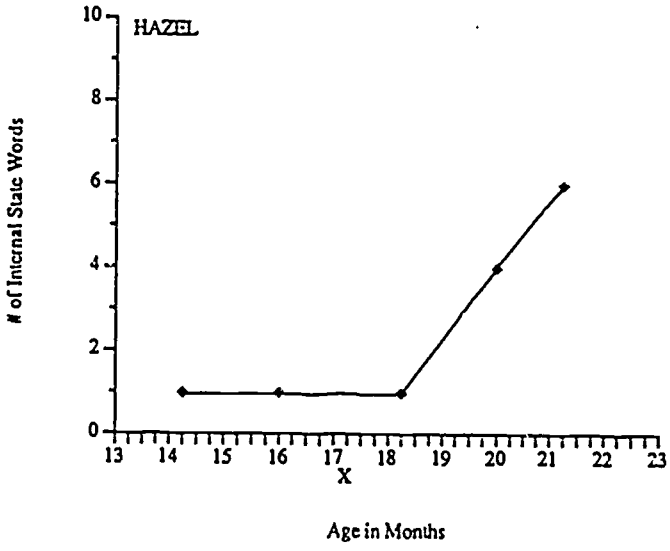
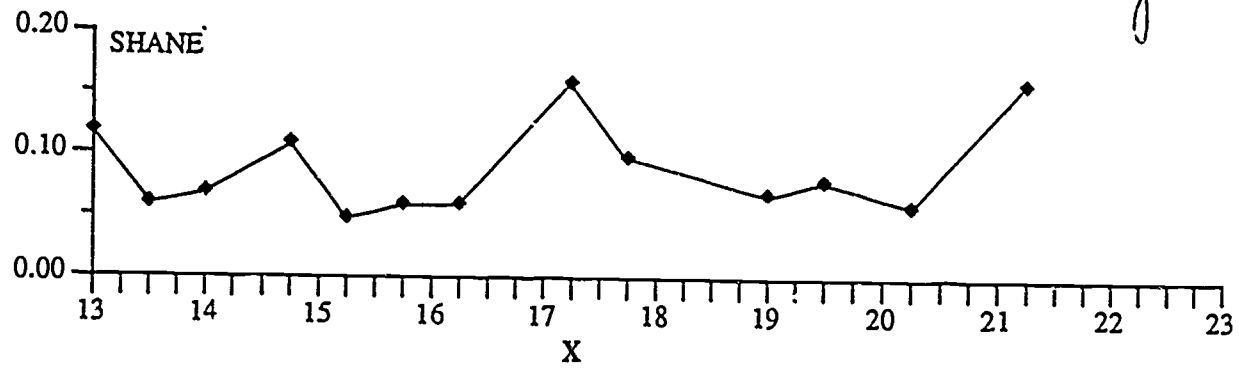

HAZEL
# of Internal State Words
10
8
6
4
2
0
13 14 15 16 17 18 19 20 21 22 23
X
Age in Months

Fig. 7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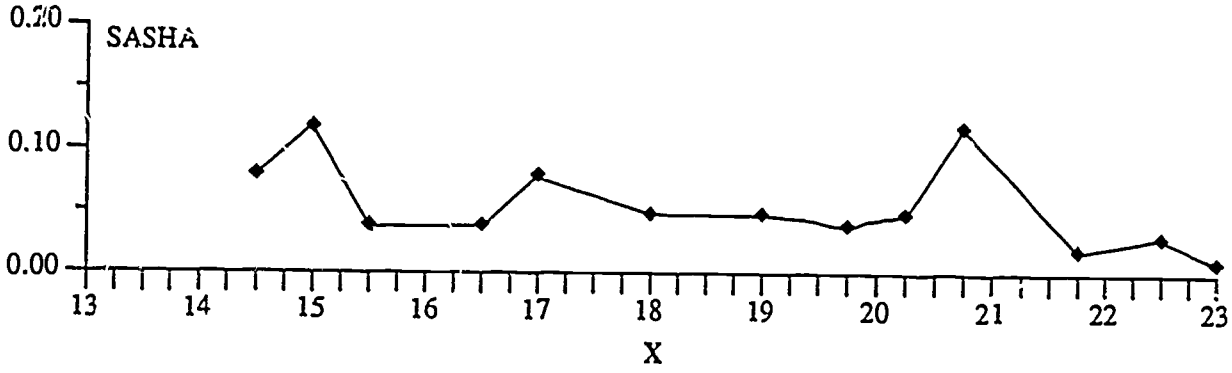
0.10
0.00
13
14
15
16
17
18
19
20
21
22
23
X


SASHA
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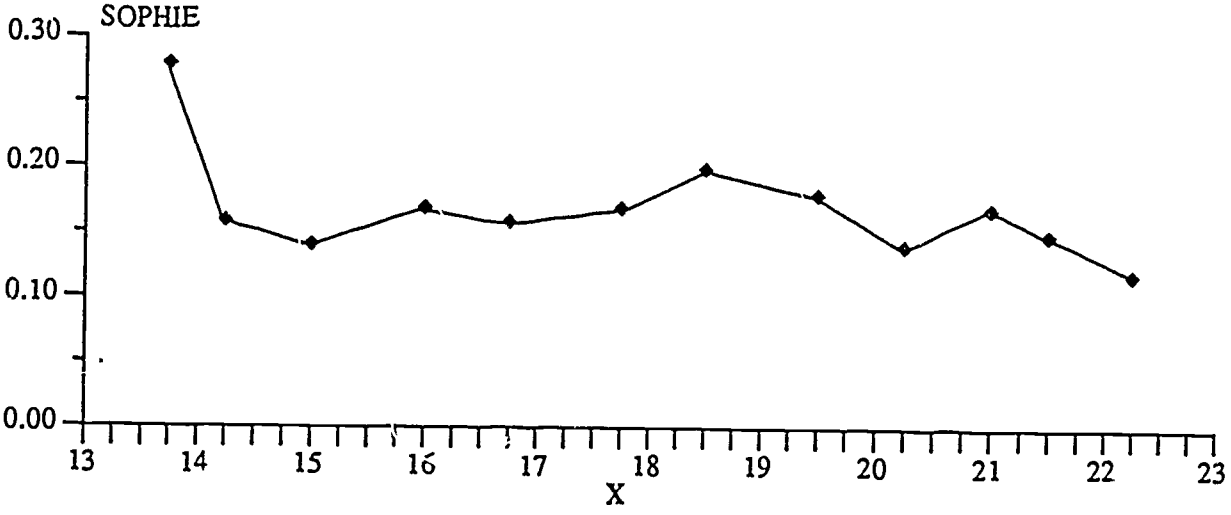
13
14
15
16
17
18
19
20
21
22
23
X


SOPHIE
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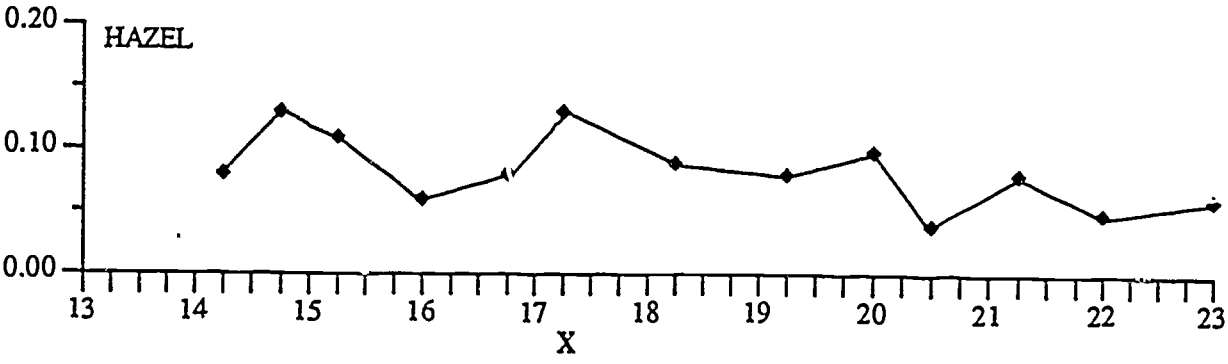
0.20
0.10
0.00
13
14
15
16
17
18
19
20
21
22
23
X


HAZEL
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13
14
15
16
17
18
19
20
21
22
23
X