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ABSTRACT

This paper reported a pilot study on issues relevant to the social development of the 2-year-old child and discussed the results within the framework of the evolutionary-control-systems theory proposed by Bowlby (1958, 1969) and Ainsworth (1967, 1969). The issues examined were (1) attachment and (2) reciprocity, or the ability of the child-mother unit to work together under a single goal-hierarchy. Hypotheses were proposed that dealt with (a) the stability of attachment, (b) maternal variables which would serve as the optimal setting for the further expression of attachment behaviors, (c) the nature of the child's ability to carry on transactions with his mother which could be labelled reciprocal, (d) maternal variables which would serve as the optimal setting for this development, and (e) the relative nature of attachment and reciprocity. Subjects were three boys and three girls from white, middle class homes. Data were collected by means of naturalistic observations in the home, supplemented by two standardized situations. Infant and maternal rating scales were used for analysis. Study findings were discussed in terms of Bowlby's theories and suggest that parents should provide the child with stable and workable behavior models on his level of ability. (NH)

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Attachment and Reciprocity in the Two-Year-Old Child

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Research Report

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ATTACHMENT AND RECIPROCITY IN THE TWO-YEAR-OLD CHILD

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INTRODUCTION

The present paper reports the results of a pilot study of a larger, broad-focus project dealing with the second year of life and using naturalistic observations as its major method of data collection. The primary aims of the project are: (a) to identify the issues relevant to this period, (b) to trace and conceptualize their development, and (c) to identify and examine the variables, both organismic and environmental, which enter into the resolution of those issues.

In view of the fact that the first four or five years of a child's life are generally considered to be of primary importance in his development as a social being, it is encouraging to find students of this development finally resorting in their research to actually observing the child, and the issues which confront him and those around him, in their natural setting. The number of these naturalistic studies is still small, but due in no small part to the respect which recent primate studies have given the method, they are steadily increasing (e.g., Ainsworth, 1963, 1964, 1967; Ainsworth and Wittig, 1969; Benjamin, 1963; Caldwell et al., 1963; Mahler, 1963, 1965; Sander, 1962, 1969; Shaffer and Emerson,

1964; Yarrow, 1963; and others). However, most studies of this nature deal with the first year of life and the issues which confront mother and child during this period, i.e., the first object-tie or attachment, and the other issues relevant to this development. With the exception of Mahler (1963, 1965) and W. Bronson (in progress), there are very few studies of this nature which deal with the subsequent three or four years of life and the issues that confront children during those years. It is this void to which the present project is addressed. Before considering this project, however, it would be advantageous to examine some of the previous literature relevant to this age-period.

Previous Literature

In most of the literature one major theme appears as the predominant issue facing the child of this age. Although conceptualized in different ways, depending on the particular theory employed, the issue is that of control, self-determination, autonomy or independence. That body of theory which has concerned itself most with this issue is, of course, Psychoanalysis, where the issue is couched primarily in terms of the Anal phase.

Hartmann, Kris and Loewenstein (1946) state the problem most concisely in an article in the formation of psychic structure:

> "The situation of the child during the period of toilet training represents in a nutshell the nature of its conflict situation

> at that age. That conflict situation is threefold: first, there is the conflict between two instinctual tendencies, that of elimination and retention (instinctual conflict); second, there is the conflict between either one of these tendencies and the child's attempts to control them and to time his function; it is a conflict between the id and the ego (structural conflict); and third, there is the conflict with the external world that has made the structural conflict necessary: the mother's request for timing of elimination."

Thus the feces, the first "object" under the child's own control, is charged with much affective significance, and the manner in which the child learns to control it will set the stage for much of his later evelopment. If the mother encourages her child's self-determination in this function, a great sense of achievement results. Otherwise pathology may appear, about which there is so much written.

In introducing her concept of "Developmental Lines," Anna Freud (1963) identifies a number of corresponding lines relevant to this phase. Two of the most important are: (1) from dependency to emotional self-reliance and adult object relationships, the relevant phase of which is, "the ambivalent relationship of the preoedipal, anal-sadistic stage, characterized by the ego attitudes of clinging, torturing, dominating, and controlling the objects (pp. 248-249);" and (2) from wetting and soiling to bladder and bowel control (as one of the developmental lines toward body independence), of which the relevant phase, ". . . is initiated by a step in maturation. The dominant role in drive activity passes from the oral

to the anal zone, and due to this transition the child stiffens his opposition to any interference with concerns which have become emotionally vital to him (p. 253)." Noteworthy, of course, is the fact that the analysts do not restrict these conflicts solely to the act of elimination, but rather see this as the prototype of all the conflicts which confront the child in his relationship to important "objects" during this phase.

In studying the process of "Separation-Individuation" in normal infants, Mahler (1963, 1965) and Pine and Furer (1963) have used observations of mother-infant interaction in identifying the course of this process. Mahler proposes the following four stages in this early development of identity: (1) a stage of Differentiation (from about 5 or 6 months to 9 or 11 months). During this period there is a decrease in bodily dependence on the mother, which coincides with the maturation of sensorimotor abilities; (2) a Practicing Period (from about 10 to 15 months). During this period the child increases the practice of motor skills and exploration, and indeed seems quite wrapped up in this. For long periods he seems oblivious to his mother, although he returns to her occasionally for "emotional refueling"; (3) a period of Rapprochement (from the time he is able to walk to about 22 months). Mahler proposes (1965) that the narcissistic investment demanded by stage 2 is no longer required and that libido is therefore redistributed and directed toward objects. The child becomes more aware of his physical separateness and

is faced with the conflicting demands of dependence and mastery. Therefore, it is during this phase that the child most clearly displays both sides of this coin; and, finally (4) the phase of the Unfolding of the Cognitive Processes (from about 21 months to about 35 months). During this period there is the development of verbal communication and rapid ego-differentiation. Furthermore, there is the establishment of mental representations of self as distinct from those of the object, and the continual presence of the mother is no longer so necessary. Mahler then goes on to relate these phases to the previous psychoanalytic formulations as discussed above.

In discussing the integration of the individual's developmental time-table with the structure of social institutions, Erikson (1950) proposes eight stages. From each of these stages ego qualities emerge that demonstrate the individual's ability--or inability--to accomplish this integration (p. 246). The first stage deals with the issue of "Trust vs. Mistrust," and is the counterpart to the establishment of the first "object-tie," or the development of attachment. The second stage is that of "Autonomy vs. Shame and Doubt," and is an expression of the modalities of holding on and letting go (p. 251). During this phase, says Erikson, there must be both firm outer control, to protect the child from meaninglessness and arbirariness, and freedom of self-expression and self-control, to allow the child to develop a sense of autonomy. In short,

there must exist the process of "mutual-regulation" (p. 252), a concept related to one proposed below as being of major importance for the two-year-old child, i.e., "reciprocity."

As a theoretical and methodological orientation, Social-Learning Theory too, has addressed itself to the issue of that task which faces the child subsequent to the establishment of his first relationship to his mother (e.g., Beller, 1955; Heathers, 1955). This orientation views the development of the mother-infant tie as one of the establishment of "dependency behaviors," and that of the subsequent development as that of the establishment of "independence behaviors." In both situations the mechanism, or cause, of this development is the establishment of the respective "secondary drives" through reinforcement of the appropriate behaviors. Although most of the research within this framework concerns the development of dependency, E. K. Beller (1955) attempted to operationalize both and study their relationship. He defined dependency behavior as: (1) attempts at physical contact; (2) proximity; (3) attempts to get an adult to pay attention to him; (4) attempts to elicit help from an adult; and (5) attempts to elicit recognition or praise. Independence behavior was defined as: (1) taking the initiative; (2) overcoming of obstacles; (3) persistence; (4) just wanting to do something; and (5) wanting to do something by himself. Beller compared these behaviors in a number of children and found, in keeping with his hypothesis, that these

occurred in a negative, but not completely inverse, relationship. He concluded that there is considerable doubt concerning the assumption of bi-polarity in the construction of measures for dependency and independence.

In the course of the present observations it soon became obvious that even though these issues did occur, they did not adequately serve as constructs for the explanation of what appeared to be the major issues. This was especially true for the concepts of control and independence. Furthermore, two reasons for this inadequacy are suggested by the observations.

The first is the fact that the concepts, particularly those of psychoanalysis, have been developed first for use with more-or-less disturbed children, and then applied to those who are so-called "normal." In the present sample those children who would be considered somewhat maladjusted did indeed manifest much behavior of this sort, while those who would be considered more "normal" manifested behavior, elements of which dealt with control, "negativism," and independence, but which, if viewed within the context of the behavior as a whole, necessitate the use of different concepts of a higher order. Thus it is possible that these higher-order concepts are applicable to the issues in "normal" development, while those more popular concepts refer to the issues confronting the child whose development has been less fortunate.

The second reason for this inadequacy is the fact that most studies dealing with the young child have traditionally taken, as the unit of analysis, the child in more-or-less isolation, even though the unit of observation might have been the mother-infant interaction. The constructs then used have removed the mother from the unit and as a result, her part in the unit is given mere lip service. Illustrations for both of these reasons will be presented in the introduction to the present study.

As stated earlier, recent primate studies have given much respect to the naturalistic method of data collection, and in fact it is from these studies, coupled with an evolutionary approach, that many of the methods and concepts emerge which are being used in the study of attachment behavior and human social behavior in general, from the work of Darwin (1872) through that of Harlow (1958, etc.) to that of Ainsworth (1963, 1967, etc.), Bowlby (1958, 1969), and Freedman (1967) (see also B. M. Foss, Determinants of Infant Behavior, Vols I-IV). Space does not allow a review of the literature on the development of attachment in primates (see, e.g., Koford, 1963; DeVore, 1965; and Shaller, 1963, 1965), but a word is in order concerning that development relevant to the present topic, i.e., the decline of attachment behavior, or independence.

Although there seem to be species differences in the relative role played by mother and infant, one of the major developmental characteristics of the young of all species is the fact that they come to play an

increasingly active role in the maintenance of proximity to their mothers. As this initiative increases, so do instances of leaving the mother for the company of peers and other adults. During this time, however, the mother still serves as a secure base for these forays, and the infant often returns to her for no observable reason. Eventually, again the timing of which depends on the particular species (and in some cases, subspecies), the young primate spends most of his waking and sleeping time with peers and other adults. In a number of cases, however, mother and child maintain their tie over a period of many years and much of their relations with the rest of the group is determined by this original tie (see, e.g., Koford, 1963).

While the primary mechanisms of this development seem to be the increasing curiosity and peer relations of the infant (Harlow, 1959), the mother also plays a role, whether in the form of holding back this development by retrieving the infant (Rosenblum and Kaufman, 1967), or that of rebuffing the infant when he approaches her (DeVore, 1963). As stated above, however, in most species the primary responsibility for this development rests with the infant.

Thus, with the exception of Social-Learning Theory, which views this development primarily as the youngster's response to reinforcing stimuli, all the evidence, including clinical, observational, and experimental, points to the fact that there is some inherent tendency (not to be

confused with drive) in the young to expand his world beyond the mother-infant dyad, and to increasingly control his own behavior independent of her whereabouts or mood, etc. At the same time, however, he maintains his attachment to her for some time, and in many species (including man) he maintains it for life. In all cases this early development is not so much in the change of attachment per se, but in the forms mediating this relationship. Invariably the development is in the direction of more use of distance receptors. In man, moreover, this development is particularly complex, due among other things, to his extended period of helplessness and relative dependence (as distinguished from attachment), to his advanced cognitive abilities and use of symbolic forms of communication, and to his relatively few forms of behavior which are environmentally stable.

The final theory to be considered--and that which, in the writer's opinion, best fits the present orientation and data--is the combination evolutionary-ethological-control systems theory proposed by Bowlby (1958, 1969) and Ainsworth (1967, and in press, c.), with somewhat more emphasis on the "systems" nature of the phenomena to be explained.[1] Space does not allow an adequate exposition of that theory (and the reader is,

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[1] For an introduction to systems theory see von Bertalanffy (1967, 1968)

therefore, referred to the above publications), but a short and general introduction to some of the concepts, especially as they apply to the present topic, is appropriate.

Bowlby starts with the basic biological fact of an organism structured from birth. Furthermore, he assumes a related biological premise that all development and behavior takes place through the interaction of that structured organism with what might be called its present, personal "Unwelt." This Interaction takes place largely by means of "feedback," a concept referring to the continuous reception by the organism of information relevant to its ongoing and continuously-changing activity. Thus Bowlby (1969) states: "Execution of a plan, it is supposed, is initiated on the receipt of certain information . . . and guided, and ultimately terminated, by the continuous reception of further sets of information that have their origin in the results of the action taken (p. 18)." This concept stresses the active role the organism plays not only in responding to environmental stimuli, but also in selecting those stimuli.

With respect to attachment itself, Bowlby proposes that the infant is "programmed" for a number of species-specific behavioral systems (see Ainsworth, 1963, 1967), which are independent at first, but gradually become organized toward the mother, and which serve to maintain proximity between mother and child, thus serving the biological function of protecting the infant from predators (see here Bowlby's discussion of

function distinguished from predictable outcome, p. 127ff). The development of these systems progresses through four phases:

1. Phase of Orientation and Signals without Discrimination of Figure (birth to 8 or 12 weeks). During this phase the infant smiles, babbles, ceases crying when picked up, etc., but his ability to discriminate one person from another is either limited or absent.

2. Phase of Orientation and Signals Directed towards One (or More) Discriminated Figure(s) (from 4 to 10 weeks to about 6 months). During this phase the infant behaves in the same friendly way as in the prior phase, but obviously discriminates in favor of (usually) his mother (Ainsworth, 1963, 1964, 1967).

3. Phase of Maintenance of Proximity to a Discriminated Figure by means of Locomotion as well as by Signals (from about 6 or 7 months to about 3 years). During this phase a number of developments take place. Among them are increasing discrimination in favor of the mother, the development of subordinate attachment figures, use of the mother as a secure base from which to explore, fear of strangers, and organization of attachment behavior on a "goal-corrected" basis, referring to the manner in which the child himself can utilize strategies for achieving and maintaining proximity to his mother.

4. The final phase, or Phase of the Formation of a Goal-Corrected Partnership (from about 2 years). During this phase the child comes to

learn some of the mother's "set-goals"[1] and of the plans she is adopting to achieve them. Furthermore, he can begin to attempt to alter her set-goals to bring them into a closer fit with his own. This is the phase with which the present study is particularly concerned.[2]

During phase 3, the child is able to achieve his set-goals of proximity and interaction by utilizing the primitive cognitive maps available to him. In Piaget's terms, he does not yet have a truly externalized and representational sense of causality and intentionality (Piaget, 1952, 1954). For the same reason, while he is able to a certain extent to predict his mother's movements, etc., he does not yet understand that they can be changed. Therefore he himself is not able to change them intentionally. During phase 4, however, which in many ways coincides with Stage 6 in Piaget's theory, the child does possess this true sense of causality, and is able to make attempts to change his mother's set-goals, however primitive these attempts may be. He thus forms with the mother what Bowlby calls a "partnership."

This development requires a number of things. First, it requires that the child observe his mother's behavior in order to infer something

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[1]The goals governing the overall structure of the behavior.

[2]See Ainsworth (1967) for a somewhat different delineation of phases.

of her set-goals, and the plans she uses to achieve them. Secondly, it involves skill in devising a plan of his own which will effect this change in his mother's behavior, and finally, it obviously involves a sensitivity on the mother's part, both in terms of perceiving the child's attempt and in responding to it, in order that the child may receive the appropriate feedback. Obviously this entire development is what Mead (1956) refers to as, "taking the role of the Other."

Introduction to- and Aims of- the Present Study

When the present project was begun, its purpose was to study the developing autonomy and independence of the two-year-old child--autonomy defined in terms of the child's self-determination and independence in terms of his decreasing need for proximity to and interaction with his mother. In observing the mother-child interaction, however, it soon became obvious that even though these issues did occur, they did not adequately serve as constructs for the explanation of what appeared to be the major issues. This was especially true for the concepts of control and independence.

To illustrate this problem, it was noticed that those children who appeared to be developing most optimally almost never displayed behavior which appeared to be very controlling; very rarely did these children appear "assertive." Yet they were the ones who seemed most secure,

seemed the most advanced cognitively, had the best relationship with their mothers, and appeared to have the most self-confidence and pride in their own activities. On the other hand, those children who appeared to be less secure, less competent, and who explored and manipulated their environment less, were those who exhibited the most assertiveness, "negativism," clinging, controlling behavior, and were those who had more confrontations with their mothers.

At first glance this appears puzzling, for have we not been led to believe that a certain amount of these behaviors is necessary for the development of autonomy, competence, independence, etc.? Wouldn't one expect these confrontation-type behaviors to foster the development of the child's ability to see himself as separate from his mother and to act accordingly? From a common-sense point of view the answer would probably be "no," but we find it difficult to explain why. From the child psychologist's point of view, we run into real trouble, because he traditionally thinks of this issue in terms of strictness vs. permissiveness. We, therefore, end up with all the arguments revolving around those issues, from that insisting on strictness to that insisting on permissiveness to the vague "solution" that parents should be firm but lenient.

What then, distinguishes between these two types of children? For the answer we must return to the observations, and more importantly,

must take the mother-child dyad as the unit, not just the child or the mother. We notice that the greatest difference is in the type of play and vocal interaction between mother and child, and that this carries over into discipline-oriented interaction. Specifically the difference is that while the more discordant pairs display very little sensitivity to each person's cues, and the interaction then becomes initiated and controlled by either the mother or the child, the more harmonious pairs display much of this sensitivity, constantly reacting to each other's cues in an appropriate way, i.e., with the behavior the cues were intended to elicit. In fact, there was so much mutual feedback (and response to that feedback) that it was often impossible to discern just who initiated or controlled the interaction. And this, of course, is the point: that neither member of the unit controlled it; rather it was controlled mutually by the reciprocal quality of the interaction. This concept of reciprocity is an example of the higher-order construct referred to above, and connotes not just relation, but mutual relation.

Certainly this reciprocity did not invariably occur, even in this latter type of dyad. A two-year-old is still much too egocentric (in the Piagetian sense) to be truly reciprocal in his interaction--especially non-play interaction, but the beginnings were obviously there, especially during play. What characterized the mothers of these particular dyads was the fact that they took most of the responsibility for the reciprocity, although

they constantly tried to elicit from the child an attempt to elicit the desired response from the mother herself.[1] The obvious further development of this is in the direction of the child's taking increasing responsibility for the reciprocity until each member shares it equally, a development which extends well beyond the end of the second year of life.

The specific purpose of the present project is to observe and study this development-in-progress in the two-year-old child. The perspective of the study is not only the child himself, but also the mother and child taken as a unit, or system. Finally, both observations and analysis are to take place in the context of the attachment relationship that has developed between the two (it is generally accepted that the child is usually attached by his first birthday).

There are basically five questions to be asked and studied in the present paper. The first deals with the stability of attachment, or more specifically, attachment behavior. While the other theories reviewed at the beginning of the introduction give one the impression that attachment behavior should be in the process of declining during this period, Bowlby (1969, p. 204) specifically states that both the incidence and intensity of attachment behavior remains stable until sometime around the child's

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[1]The writer is indebted to John Bowlby, through Mary Ainsworth (personal communication), for this suggestion.

third birthday. At this time the class of behavior often changes so rapidly that Bowlby suggests that there may be some maturational threshold passed. He states, however, that even though the class of behavior does not change, the circumstances that elicit this behavior do. Therefore, the first question to be asked is: does the class of behavior decline from year one to year two? The present hypothesis is that it will not.

The second question deals with the systems-nature of the mother-child dyad, and seeks to identify the characteristics of each member of the dyad, characteristics which interact to form the system as a whole, and which enable the observer to distinguish one system from another. Traditionally this question is stated as: what are the maternal variables which cause any particular "direction" of development in the child? However, we will adhere to the first formulation, since the writer does not ascribe to this traditional view of total linear-causality.

To answer the question, a number of behavioral variables of both mother and child will be conceptually extracted from the data and compared, with the hypothesis that an "adaptive" response by the child to a separation-anxiety provoking situation, and a smooth balance of proximity- and exploratory-seeking behavior both in the home and outside, in the park, will correlate with the following maternal variables: sensitive perception of the child, delight in him, much response to the child's initiations of interaction, and high quality of play interaction.

Conversely, it is hypothesized that since the feedback the child receives from his own behavior, and the ongoing interaction between mother and child are respectively much more important than the amount of interaction initiated by the mother and her degree of strictness or permissiveness, that these latter two variables will not correlate more than weekly with the child variables mentioned above.

The third question deals with the nature of the two-year-old child's ability to carry on reciprocal transactions with the mother. Since the emphasis here is on the dyad as much as on the child by himself, the issue becomes: what is the nature of the "partnership" at this stage? A standardized situation meant to elicit "planned" behavior under slightly frustrating circumstances was developed which would hopefully test this phenomenon, and its applicability is discussed.

The fourth question is very similar to the second, except that it deals with the issue of reciprocity rather than that of attachment, and relates to the discussion of reciprocity vs. strictness-permissiveness presented earlier in the introduction. The specific hypothesis is that if the above situation is indeed applicable to the two-year-old child, then an "adaptive" response on the part of the child will correlate with the quality of the mother's interaction with him, and will not correlate with her degree of permissiveness or strictness.

The final question deals with the relationship between attachment and reciprocity. The question is: does reciprocal behavior belong to the

class of attachment behaviors? Bowlby seems to imply that this is so. Certainly one cannot argue with the fact that one of the earliest and primary uses of this latter class of behavior belongs to the former, i.e., the child's attempts to induce the mother into proximity with himself. However, it is possible that in general, these are two distinct, but overlapping and related classes of behavior, each with its own biological function and predictable outcome. There are possible arguments for either view, not the least important of which is the question as to which is to be considered the more basic or relevant in terms of class of behavior: the tendency to attempt to change another's set-goal or plan per se, or the tendency to behave reciprocally. At any rate, the latter behavior seems at least a partially different issue from that of attachment, although it is, of course, hierarchially integrated or organized with the attachment behavior.

The answer to this question is beyond the scope of the present paper (although it will be further considered in the discussion), but we can at least ask if there is a one-to-one correspondence between them, and if not, does the attachment serve somehow as a foundation for reciprocal interaction, in keeping with the systems-approach to the issues, the present hypothesis is that, for whatever reason, attachment and reciprocity will not correlate perfectly, and furthermore, that the attachment relationship developed during the first year will restrict the possible

configurations of reciprocity in the following manner: that given a secure attachment relationship, any outcome of the issue of reciprocity is possible, whereas given an insecure attachment, or an overly-independent relationship, an optimal outcome of the issue of reciprocity will be much more difficult to achieve. Certainly the relationship between the two is much more complex than proposed here, but for the present purposes, the above will suffice.

PROCEDURE

The present study employed as methods of data collection naturalistic observations of the child and mother in the home, supplemented by two standardized situations, one in the home and one in a novel, experimental setting. The standardized situations were (1) a "Cookie Test," and (2) a "Strange Situation" (to be described below). The sample used for this pilot study consisted of six children between the ages of 21 and 25 months. There were three boys and three girls, all from white, middle class homes. Because of the small size of the sample, the reader is warned against viewing any results of this pilot project as significant support for any of the hypotheses.

I. Home Visits

Rationale

The primary rationale for the use of naturalistic observations is the fact that we know very little about the social behavior and development of the child, especially during that period from birth to about four years. It is certainly ironic that American psychology, in attempting to emulate the physical sciences, has attempted to forgo the necessary phase of observation preliminary to experimentation, a phase all sciences have had to go through. Only naturalistic observations give us the broad focus so absolutely necessary at this point in our knowledge of child

development. Evidence of this necessity is the fact that while the purpose of the present study was originally to observe the developing autonomy or independence of the two-year-old child, it was quickly found that these were not the issues in the majority of cases. Had the present study had more focused methods, the results would have been much distorted and of questionable meaning.

An equally important reason is that it seems meaningless to study a child's "normal" development in an abnormal situation, e. g., experimental setting, since as Ainsworth (in press. d.) and others have shown--and as common sense tells us--a young child does not behave in the same manner at home and in a strange setting.

Schedule of Visits

The original plan called for six, four to six hour visits to each home within a period of two to three weeks, in order to obtain a good cross-section of the behavior of both the mother and the child. This was done with the first two subjects. It became apparent that six visits were more than necessary, and the number was, therefore, cut back to four. This procedure was followed for three of the remaining four subjects, and the sixth, for unavoidable reasons, was visited only three times.

Data Collection

The mother and child were observed and an attempt was made to make continuous record of everything that happened relevant to the child.

This was impossible, of course, so priority was set on the social behavior of both mother and child, with particular emphasis on situations conducive to--and actual instances of--attachment behavior, exploratory behavior, independent or autonomous behavior, and "control" or "competence" behavior, both physical and social. These were the major foci and took priority over other things that transpired, but whenever possible any other behavior of the mother, the child, siblings, father, etc., was recorded. Thus, for example, all instances of solitary play, all vocalization by the mother or child, and much of the mother's non-infant oriented behavior was recorded. The mother and father were also interviewed when possible.

After each visit the record was expanded and typed, resulting in a full, continuous running-account of nearly all that happened during the visit. This then, was the basic unit of data.

II. The Cookie Test

Each child was subjected to this standardized situation during one of the home visits. Adapted from a situation first used by D. G. Freedman (unpublished), it was originally a situation through which one could evaluate a child's ability to delay gratification. In its altered form, it has the additional advantage of eliciting the child's characteristic mode of attempting to influence or change his mother's plan, or behavior. The situation is as follows:

> Mother and child sit on opposite sides of a low table, and the mother pretends to be writing a letter. At a signal from the observer, she places a cookie, previously hidden, on the table to her left, and continues to write. She remains quiet and writing until the child reaches for the cookie, at which time she tells him, "No, you can't have it yet. Wait 'till I'm through writing and then you can have it." If the child continues to reach for the cookie, she covers it with her hand and repeats her instructions. When the child takes his hand away from the cookie, the mother does the same and resumes writing. Each time the child reaches for the cookie, she responds in precisely this manner. The situation continues for five minutes, unless the child is so distressed that the observer or the mother wish to terminate it.

The situation was recorded in the same manner as the home visits, with the assistance of a set of shorthand symbols developed by the present writer during the analysis of a previous study using the original version of the situation. In subsequent applications, a portable video-tape recorder is to be used.

III. The Strange Situation

Rationale

While the control of variables would yield quite sterile results if used as the primary source or method of data collection at the present point in our knowledge of the young child, it is recognized as a very potent method qua method, and is able to overcome many of the disadvantages of a more open, naturalistic method. Therefore, in order to have a more common base for comparing each child with the others, another standardized

situation was introduced; a situation meant to elicit, among other things, attachment behavior, exploratory behavior, manipulative behavior, "separation-anxiety," and reaction to a stranger. This Strange Situation was developed by Mary D. Salter Ainsworth (Ainsworth and Wittig, 1969), and was used in the present project just as used by her, with three minor changes which will be identified subsequently.

Procedure

After all home visits were completed, each mother-child pair was brought to the university and introduced to a room with about 10 x 12 feet of open floor space. The room contained three chairs, one for the mother, one for the child, and one for a stranger. In front of and around the child's chair were a number of small toys. The room also contained two desks and a bookcase, which had been pushed against the walls. This room was separated from an observation room by a one-way window, through which the session was recorded on video-tape.

The procedure, involving eight episodes, each of which lasted three minutes (with the exception of the first), is as follows:[1] (see also Table 1)

Episode #1 The mother, accompanied by an observer, carries the child into the room, and then the observer leaves.

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[1]For a complete description and discussion of the situation, see Ainsworth and Wittig (1969) and Ainsworth and Bell (in press. b.).

Episode #2 The mother puts the child down in the center of the room and then sits quietly in her chair, participating only if the child seeks her attention.

Episode #3 The stranger enters. She sits quietly for one minute, converses with the mother for one minute, and then gradually approaches the child (and interacts with him if possible). At the end of the three minutes the mother leaves the room as unobtrusively as possible.

Episode #4 This episode begins when the mother leaves the room. The stranger remains quiet for a short time, (unless the child is still interacting with her). She then interacts with him and after a minute she sits down and only interacts with the child if he approaches her. If the child is upset she tries to comfort him. If he cannot be comforted, the episode is curtailed.

Episode #5 The mother returns. She pauses outside the door, calls to the child, and then opens the door. The stranger leaves. The mother pauses at the door to allow the child time to mobilize a response, and then responds to whatever signal he gives her. After settling the child down with the toys again, the mother returns to her chair.

Episode #6 At a signal from the observation room, the mother leaves her chair, goes to the door, pauses, says, "Bye-bye, I'll be back." to the child, and then leaves the room. The child is now alone. Again, if he is extremely upset, the episode is curtailed.

Episode #7 The stranger enters. She behaves in the same manner as in episode #4, unless it is curtailed.

Episode #8 The mother again pauses outside the door, calls to the child, opens the door (and the stranger leaves), and again lets the child

Table 1

Episodes in the Strange Situation

Episode	Time	Entrances and Exits
1. Mother, Child, Observer	30 seconds approximately	Observer leaves room
2. Mother, Child	3 minutes	
3. Stranger, Mother, Child	3 minutes	Stranger enters room
4. Stranger, Child	3 minutes	Mother leaves room
5. Mother, Child	3 minutes	Mother enters room, Stranger leaves
6. Child Alone	3 minutes*	Mother leaves room
7. Stranger, Child	3 minutes*	Stranger enters room
8. Mother, Child	3 minutes	Mother enters room, Stranger leaves

* Episode is curtailed if the child is highly distressed

mobilize a response. She behaves in the same manner as in episode #5 until the three minutes are up.

There were three minor differences between the situation as originally used and as used in the present case. First, whereas in the original plan, the mother was to be reading a magazine while sitting in her chair, in the present case she was given no magazine, and therefore invariably watched what the child was doing. Secondly, in the original plan, the mother was to call to the child only the second time she re-entered the room, whereas in the present case she did so both times. Finally, in the original plan, episode #8 was terminated after mother and child were reunited, whereas in the present case the episode lasted the full three minutes.

In recording the situation one camera was trained on the child, and another on a clock with a sweep-second hand, so that an accurate and constant record of elapsed time would be available for analysis. Both pictures were preserved on the final tape by means of a special-effects generator. In addition, an observer made a continuous narrative audio-record of the mother's behavior--a record which was picked up by the audio portion of the video-recorder.

METHODS OF ANALYSIS

I. Home Visits

Since the naturalistic observations are the major source of data, most of the analysis of the larger project of which the present study is a pilot will center around them. The analysis will be divided into (a) case studies, (b) infant ratings, (c) maternal ratings, and (d) codings of that interaction between mother and child which appears relevant to the developing ability to behave in a "goal-corrected" manner and to influence the behavior of others in an intentional manner. However, the case studies and codings have not been completed and do not appear in the present report.

Infant Ratings[1, 2]

The one scale to be considered in the present paper deals with the child's balance of proximity- and exploratory-seeking behavior, both in the home and outside--in the park. This scale was developed by Mary Ainsworth for use with one-year-old babies, and is used in the same form here to test the hypothesis that the attachment relationship stabilizes at

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[1]All rating scales appear in full in Appendix A.

[2]The number of ratings was too small for a statistical check of reliability, but high reliability is evidenced by the fact that of 25 ratings made by more than one person, only two differed by as many as two points on the scales.

about that age. In fact, Ainsworth is no longer using this particular form of the scale, but it was found particularly useful for the present sample. Briefly the scale is as follows:

Group I--This child has little concern for his mother's whereabouts, and does not tend to keep visual tabs on her. He tends not to initiate interaction with her and also protests many of her attempts to interact with him. He is highly independent. His exploratory behavior appears to be hyperactive and to lack sustained attention, or seems overly-controlled.

Group II--This child tends to have a "take-or-leave" attitude toward his mother's presence, i.e., he is intermediate between Groups I and III. He does not hesitate to leave his mother, but does occasionally initiate interaction with her, or go to her for proximity. He does not seem to ignore his mother's attempts to interact with him.

Group III--This child uses the mother as a secure-base from which to explore, and seems to have a balance between proximity and exploration. He keeps track of his mother's whereabouts. He initiates interaction with her across a distance, and returns to her from time to time. His exploration and manipulation are also sustained and varied.

Group IV--This child is a "clingy" child--perhaps because he is insecure. He tends to stay close to his mother and frequently seeks contact. He requires merely proximity to the mother, and not necessarily contact, in order to explore. His anxiety is easily aroused, and he rarely displays ambivalence toward the mother.

Group V--This child is unable to engage in sustained, independent activity truly exploratory in nature. He requires his mother's participation. He is rarely effective in his proximity-seeking. This is basically a passive child.

Group VI--This child shows proximity and exploratory behavior, but they do not seem smooth or integrated, as they are in Group III children. He is often clearly ambivalent, wanting proximity or contact and then resisting it once it is gained. These children have very little attention-span in their play activities.

Each child was classified according to these criteria both in the home and outside. The characteristic rating was taken rather than the average rating across visits.

Maternal Ratings

Each mother was rated in terms of seven different scales for each visit and the ratings were then averaged across visits. Each scale consists of nine points, with the odd points specifically defined, thereby introducing a qualitative as well as quantitive element into the scale.[1] Very brief descriptions of each scale follow:

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[1] A number of these scales were developed while the writer was working with Mary Ainsworth, and the writer is indebted to her for both these and for many of the ideas from which the more recent scales were developed.

1. Mother's Perception of the Child--This scale deals with the distinction between realistic and distorted perception, with the perceptive mother also characterized as being sensitive while still being aware of her own needs and affects, and as having a clear conception of herself as separate from the child.

2. Mother's Delight in the Child--This scale is concerned with delight that is experienced and expressed in response to the child himself--in response to his own spontaneous expressions or reactions, or in response to his behavior when in interaction with his mother or others. Delight is distinguished from pride.

3. Amount of Interaction Initiated by the Mother--This scale is concerned only with the amount of interaction initiated by the mother, and includes both play and vocal interaction.

4. Quantity of Response to the Child's Initiations of Interaction--This scale concerns the relative amount that the mother responds to the child's initiations, independently of the amount she herself initiates.

5. Quality of the Interaction--Again, this scale includes both vocal and play Interaction, but concerns the pleasure derived by both parties, the manner in which it is geared to the child's developmental level, its degree of reciprocity, and its spontaneity.

6. Mother's Response to the Child's Assertiveness--While this scale concerns the mother's degree of strictness or permissiveness to a

large degree, it also concerns her response to the child's "will" in other situations as well.

7. Mother's Encouragement of Achievement--This scale concerns just the amount of encouragement, not its appropriateness. It is concerned with both her conscious and articulated encouragement, and that of which she seems less aware.

These ratings of both mother and child will be compared with each other, and with the results of the Strange Situation and Cookie Test, to test the hypotheses discussed in the introduction.

II. Strange Situation

The analysis of the data from the Strange Situation will be carried out in the same manner as done by Ainsworth and Bell (in press, b). A brief synopsis follows, and a more complete account of the coding and rating schemes is presented in Appendix B.

Basically, each child's response to the situation was quantified along two dimensions: (1) a tally of instances in which behaviors such as exploration, visual orientation, approach to the mother or stranger, crying, and smiling occurred during each episode; and (2) ratings of the nature and intensity of the following classes of behavior--contact gaining, contact maintaining, resistance to proximity, resistance to contact, and search behavior. These dimensions were then combined to arrive at a

classification of the child's reaction as a whole. Three major classifications have arisen from the data, and are as follows (there are also subgroups within the larger ones):

> Group A--Little or no tendency to seek proximity or interaction with the mother, even in reunion episodes. Tendency to ignore the mother upon her return. Tendency to treat the stranger much as the mother is treated. Either the child is not distressed during the separations, or the distress seems because the child is left alone; it does not occur when the stranger is present.
>
> Group B (the "normal" group, both statistically and theoretically)--The child responds to the mother's return with more than a casual greeting, i.e., crying, smiling, and/or approaching. Active in seeking proximity and contact. May or may not be friendly to the stranger, but clearly wants the mother more. If distressed during the separation episodes, it is clearly related to the mother's absence, and not merely to being alone. He also uses the mother as a secure base from which to explore during the pre-separation episodes.
>
> Group C--The child displays generally "maladaptive" behavior in the strange situation. Shows inability to use the mother as a secure base from which to explore, or fails to enjoy it. While there may be some active, positive behavior to the mother in the reunion episodes, it is less than that shown by Group B, and is mixed with passivity, anger, withdrawal, or detachment to an extent much greater than Group B children show.

These final classifications are the results which are to be compared to those of the rating scales from the home visits and the results of the Cookie Test.

III. Cookie Test

This situation was introduced because the writer felt intuitively that it was relevant to the two-year-old child. Prior to the analysis there were

no obvious ways of meaningfully analyzing it, and in fact it wasn't until a number of the situations were completed that it became apparent just how relevant and useful it is. Therefore, most of the analysis will remain open-ended until enough subjects are "run" to enable a specific method to arise from the larger sampling of data. However, one possible method is proposed in the course of presenting the findings, a method which concentrates on evaluating the child's conception of his mother as having a plan, his willingness to alter his own plan, and his attempt to alter his mother's plan.

A synopsis of the situation will be presented for each subject, some inter-subject comparisons and tentative generalizations made from these, and finally, a comparison will be made among (1) reactions to this situation, (2) results of the maternal and infant rating scales, and (3) reactions to the Strange Situation.

RESULTS

The findings to be considered will be presented in the following order: (1) a cross-sectional comparison of the results of the Strange Situation at year one and year two, (2) a comparison of the maternal and infant rating scales with the classification of outcomes of the Strange Situation, (3) descriptive results of the Cookie Test, (4) a comparison of the Cookie Test and maternal rating scales, and, finally, (5) a comparison of the Strange Situation and Cookie Test.

I. Comparison of the Strange Situation at Year One and Year Two[1]

Crying

Three of the six children in the present sample of two-year-olds cried during the Strange Situation. As might be expected, this is a much smaller percentage of the total sample than was found to cry at age one. More important, however, is the fact that those in the present sample who did cry followed the same pattern across episodes as did the one-year-olds (see Fig. 1). They did not cry during the preseparation episodes, indicating that neither the novel situation nor the stranger were, in themselves, alarming (however, evidence that the stranger is alarming is presented below). In episode 4, when the mother departs leaving the

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[1] The data on the one-year-old babies is taken from Ainsworth and Bell (in press. b.).

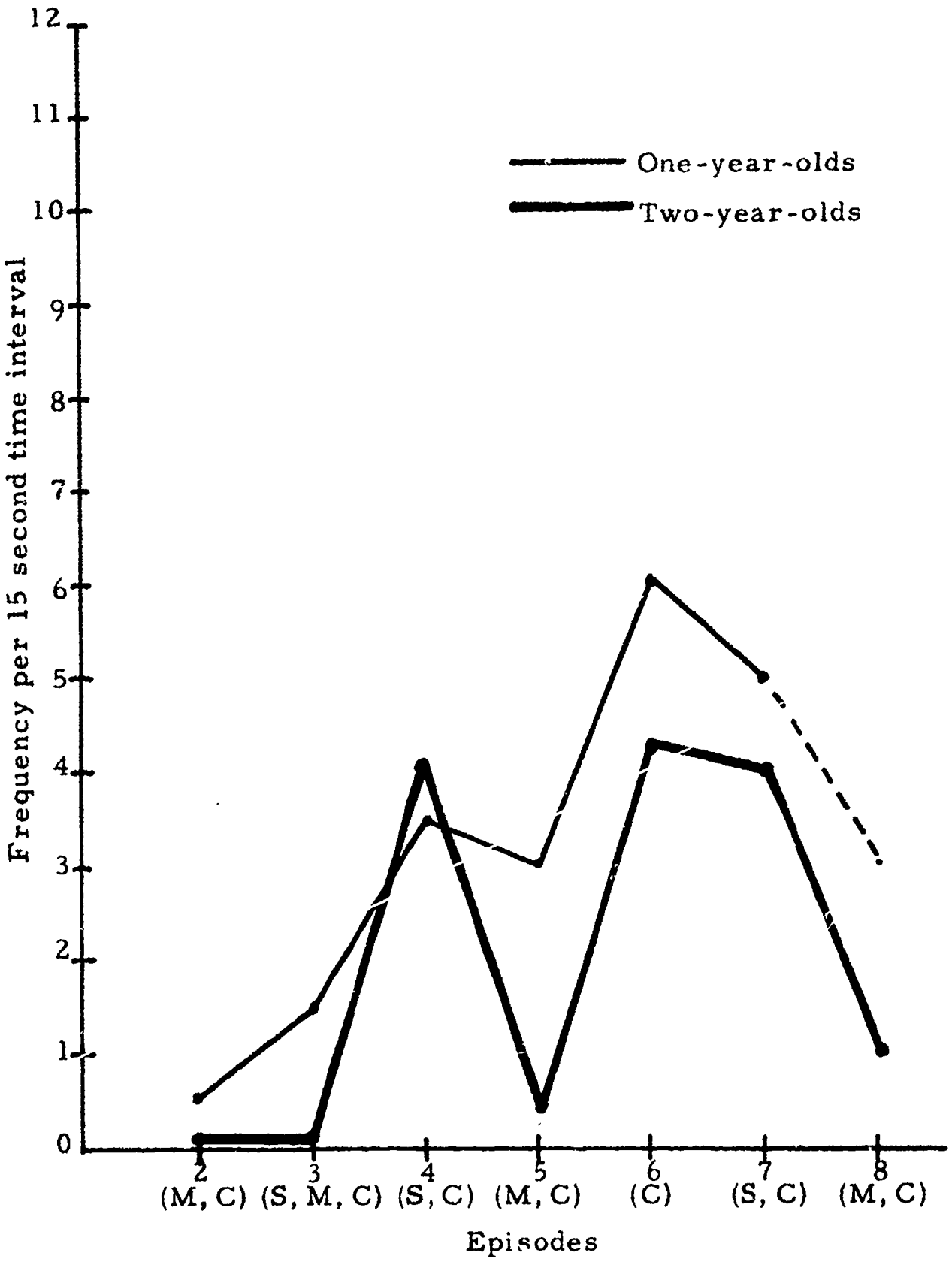

Figure 1. Crying

stranger alone with the child, these three children did cry. When the mother came back (episode 5), all three quickly stopped. In episode 6, when mother departed again, this time leaving the child alone, crying increased, although the increase was not as great for the two-year-olds as it was for the one-year-olds. When the stranger came in (episode 7), the crying decreased slightly, and finally, when the mother returned in episode 8, the crying quickly disappeared again.

As can be seen from Figure 1, the only major difference between the one- and two-year-olds is that the two-year-olds cried somewhat less than the former. This is certainly to be expected, since these children have had an extra year to familiarize themselves with being around strangers.

Again, as Ainsworth and Bell found, crying and exploratory behavior appear to be negatively correlated.

Exploratory Behavior

Figure 2 shows how locomotor, manipulatory, and visual exploration for the two samples varies across the episodes. Except for one major difference, the behavior of the two age-groups is similar, decreasing when the stranger comes into the room, further decreasing when the mother leaves the room, and increasing each time she re-enters. As might be expected, exploration was consistently higher for the two-year-olds than for the one-year-olds, although the curves are of very similar shape.

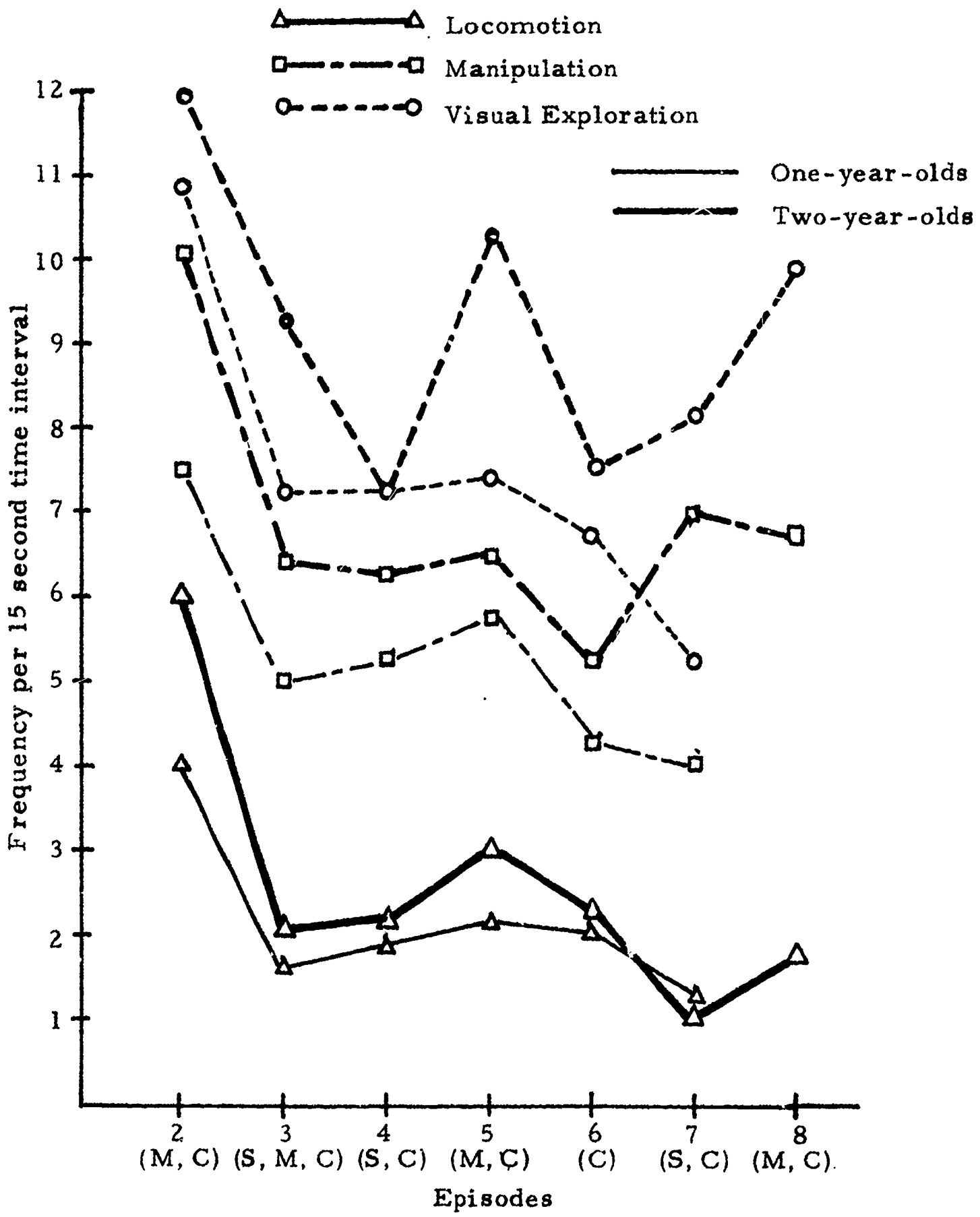

Figure 2. Exploratory Behavior

The one major difference occurred in episode 7. Whereas the one-year-olds further decreased their exploratory activity when the stranger entered the room this second time, the two-year-olds increased both their manipulatory and visual exploration. It would seem reasonable to assume that this occurred because they are better able to "warm" up to the stranger, even though they too decreased this activity when the stranger entered in episode 3. A further indication that the two-year-olds felt progressively more comfortable with the stranger is the fact that the incidence of exploratory activity in episode 7 surpassed that displayed in episode 3, when the stranger first entered the room.

Search Behavior during Separation

Figure 3 shows what is perhaps the greatest similarity between the two age-groups: the strength of search behavior during each of the separation episodes. The mean strength during episode 4 was between 3 and 4 for both age-groups, a very small difference. This behavior increased during episode 6, and then decreased again in episode 7. The differences between these latter two were even smaller than that for episode 4.

Proximity-seeking and contact-maintaining behaviors

Ainsworth and Bell found that both of these classes of behavior were weak or negligible during episodes 2 and 3, but rose sharply and significantly during the reunion episodes (5 and 8). The situation is

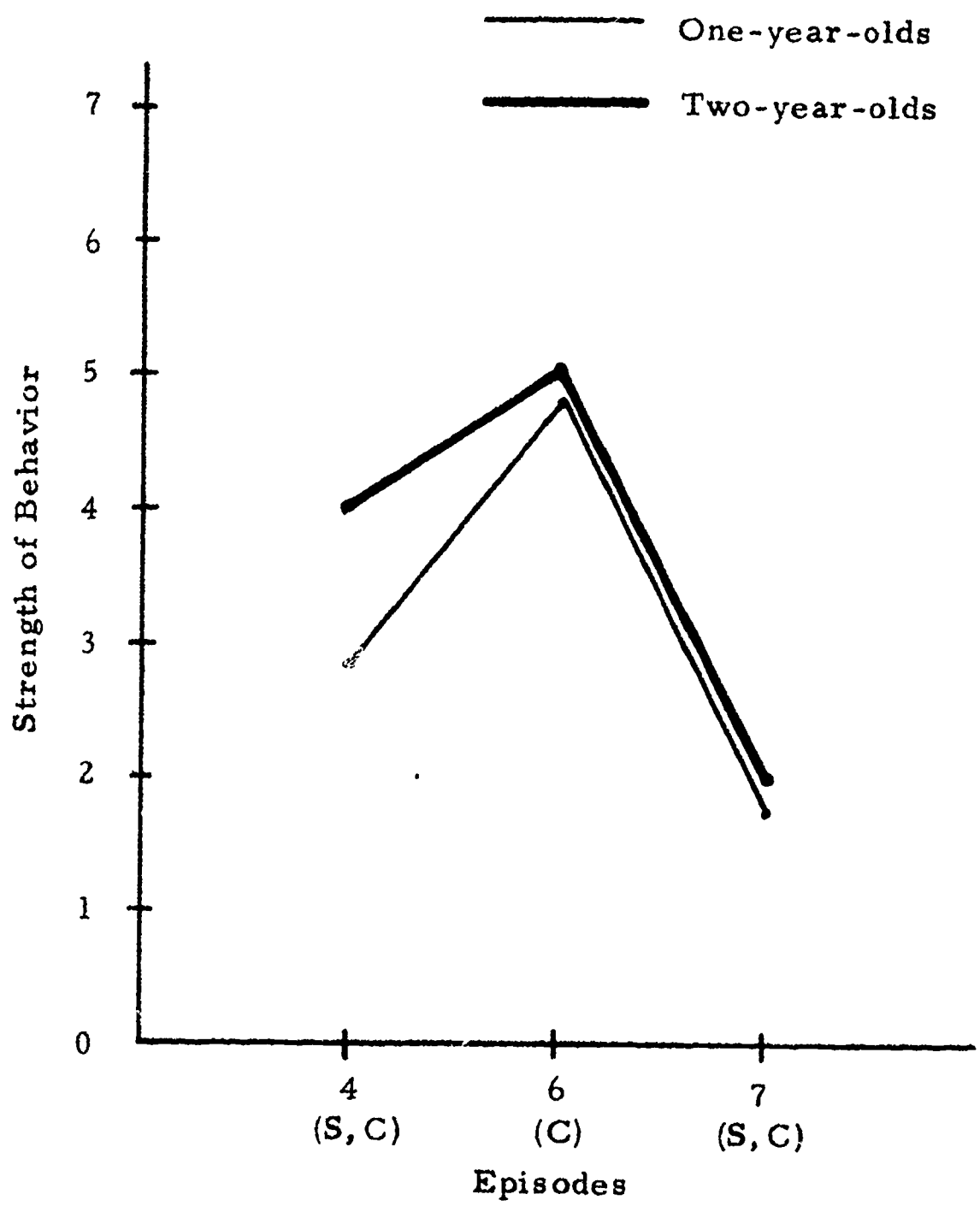

Figure 3. Search Behavior During Separation

significantly different, however, with the present sample of two-year-olds (see Figure 4). While there was little or no difference in episode 2, in episode 3 both behaviors rose dramatically, and then decreased across the two reunion episodes. It might be suggested at first glance that this difference could be due to the inability of the present-small sample to average out any large individual differences, but the writer feels that since four of the six children behaved in precisely this manner, this possibility can be ruled out. Furthermore, a comparison of Figure 4 with exploratory behavior in Figure 2 yields two interacting hypotheses for this difference. It is suggested that the increase in manipulatory and visual exploration from episode 6 to episode 7 was due to the fact that the two-year-old was better able to "warm up" to the stranger than was the one-year-old. This could account for the lower strength of proximity and contact behaviors in that not being as upset in the separation episodes, the two-year-old would not display contact- and proximity-seeking behaviors as strongly as would the one-year-old. This would be in keeping with one of Bowlby's major hypotheses concerning the nature of the systems mediating attachment, i.e., that the terminating conditions will vary according to the intensity of the activating conditions (Bowlby, 1969).

How then do we account for the initial, very sharp increase in these behaviors in episode 3? Returning again to Figure 2, it can be seen that there is a sharp decrease in exploratory behavior in episode 3, when the

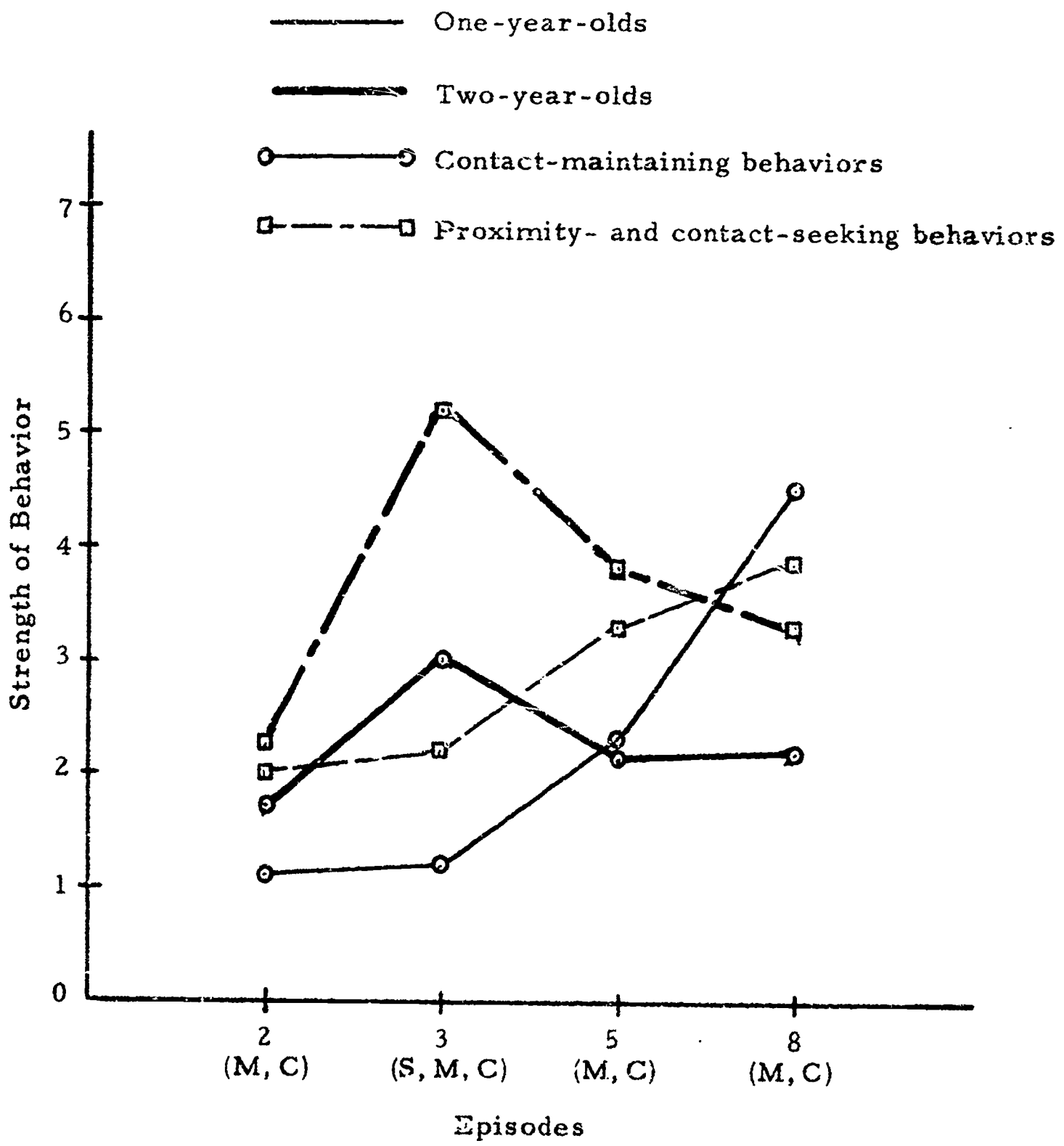

Figure 4. Proximity and Contact-Seeking Behavior

stranger enters the room. Looking at Figure 4, we see that this decrease is accompanied by approach to the mother. Indeed this approach is stronger in the two-year-old than in the one-year-old. In fact, this is what happened--in the majority of cases the child went directly to the mother when the stranger entered the room (or when she approached the child), and then was able to go to the stranger after a brief "refueling." We see then, that the two-year-old, just as the one-year-old, displayed an initial wariness of the stranger, and then used the mother as a "haven of safety" (Ainsworth, 1963, 1967). Due to his increased locomotor ability, the two-year-old was better able to effect this than the one-year-old. Much more than the one-year-old, however, the two-year-old was quickly able to use her as a "secure-base" (Ainsworth, 1963, 1967), and actively approach the stranger. That this state of affairs should develop at this age is biologically adaptive since, while the two-year-old is still quite helpless, he is also beginning to spend somewhat more time away from his mother, and is beginning to form subordinate attachment relationships, including adults and other children.

There remains one further question to be answered concerning Figure 4, i.e., why is there such a great difference between proximity-seeking and contact-maintaining behaviors in episode 3--and why is this difference so much greater for the two-year-olds than for the one-year-olds? It is suggested that this is due to a major characteristic of

attachment behavior as it develops and changes through the life-cycle, i.e., it becomes mediated more and more by distance receptors as development continues. Thus, while the one-year-old might need actual contact with the mother to feel secure under these circumstances, the two-year-old, whose attachment is becoming more mediated by visual contact and language, is more likely to feel secure by merely approaching his mother, rather than needing actual physical contact.

Thus it appears there is some credence to Bowlby's hypothesis that once the attachment relationship has become stabilized (sometime around the end of the first year) it retains a great deal of constancy until about age three (Bowlby, 1969). The present data suggests that this is so at least through the second year. Indeed, there are differences, but these relate mostly to the effects of increased locomotor ability, and the ability to "warm up" to a stranger more quickly than a younger child. On the other hand, it is obvious that these older children still use their mothers as a secure-base, i.e., that proximity behavior and exploratory behavior are in dynamic balance, and that both are related to the whereabouts of the mother (Ainsworth and Bell, in press. b.). Another indication of the similarity across these ages is the ease with which the coding and classification schemes, which were developed for use with one-year-olds, can be applied to the two-year-olds.

II. Comparison of Maternal and Infant Rating Scales with the Outcomes of the Strange Situation

As stated in the section of methods of analysis, each mother was rated on seven different variables and the ratings averaged across visits. Then each child was rated on his particular balance between proximity-seeking and exploratory behavior, both indoors and outside. Finally, each child was classified according to his behavior in the Strange Situation. These data are presented in Table 2. Since this amounts to an analysis of individual differences, and since the sample is limited to six cases, one must be even more careful about making generalizations here than in the previous section of results. Nevertheless, some of the configurations seem suggestive, especially when compared with similar data from one-year-olds (see Ainsworth and Bell, in press. a.).

First, there seems to be a rough correlation between outcomes of the Strange Situation, proximity-exploratory balance, and the maternal ratings, --especially those ratings which the writer feels are most important, i.e., the mother's perception of the child, her delight in him, her response to his initiation of interaction, and the quality of her interaction with him. Thus those babies whose response to the Strange Situation was most adaptive, i.e., the "B"-group, tended to be those who had that balance of proximity and exploratory behavior in the home which was proposed as most adaptive. Furthermore, it was this same group of

Table 2

Maternal and Infant Rating Scales and Outcome
of the Strange Situation

Subject Number	M's Perception of Child	M's Delight in Child	M's Initiation of Interaction (amount)	M's Response to Child's Initiation of Interaction (amount)	Quality of M's Interaction	M's Response to Child's Assertiveness	Amount of Encouragement of Achievement	Child's Balance of Proximity and Exploration (indoors)	Child's Balance of Proximity and Exploration (outdoors)	Outcome of Strange Situation
6	8.8	8.5	7.5	9.0	8.8	6.8	7.3	III	III	B_1
5	7.0	6.5	3.5	7.5	4.5	7.8	7.0	III	II	B_1
4	6.6	5.0	4.5	6.3	6.8	4.8	6.5	III	II	B_2
2	6.2	4.2	3.8	6.2	6.6	5.5	5.6	II	IV	B_3
3	6.8	4.0	6.0	7.3	4.0	6.3	6.3	I	I	A_1
1	4.0	3.7	4.5	4.3	3.2	4.0	5.5	VI	II	C_1

children whose mothers received the highest ratings on the four above-mentioned scales.

Secondly, the hypothesis that those scales dealing with: (1) the mother's initiation of interaction, (2) her response to the child's assertiveness, and (3) her encouragement of achievement, will not correlate highly with either the outcome of the Strange Situation or the child's balance of proximity-exploration seems to be supported. This seems especially true with respect to the first and second scales. It is necessary, of course, to enlarge the sample to establish this with any certainty.

The major problem remains to explain why there are certain exceptions to the general trends. This is one of the major advantages of the naturalistic method, i.e., that so much more of the data can be explained than is possible in a more classically experimental and/or narrow-focus approach. That there must be some expliciable reason for these deviations is suggested by the fact that Ainsworth and Bell (in press. a.) found practically no examples of a mother who was very "good" in one respect and very "bad" in another. The specific cases to be dealt with are #3 and #5.

Child #3 is a little girl, who was classified A_1 in the Strange Situation, i.e., she was very independent, treating the stranger much as she treated her mother, and resorting to proximity-avoiding behavior which seemed "defensive." At home and outside she behaves in precisely the

same manner. As the scales indicate, her mother is quite perceptive and interested in interacting with the child, but the resulting interaction is of very poor quality. The major reason for this poor quality, however, is the child herself: characteristically she absolutely refuses to let her mother have anything to do with her at all. There are exceptions to this, of course, but this is the attitude that strikes any observer. As a result, one often gets the impression that this mother is almost <u>afraid</u> of her child, who will throw a temper tantrum over almost anything. The question is: even though this mother is somewhat withdrawn and shows very little delight in her child, she still attempts to interact with her often, is a very perceptive woman, and always responds to the child's signals immediately. Why then did her child behave in such a way as to be classified A_1 in the Strange Situation? For an answer to this we must attempt to reconstruct something of her first year of life.

Both the mother and father of this little girl are academic people and both teach. Furthermore, both the mother and father have taught since the child was born. This meant that the mother was gone much of the time the child was awake. While the mother was away, the paternal grandmother, who lived with the family, took care of the baby. Finally, the father took over much of the care of the child when he quit teaching and went back to school. Thus a number of factors seem to have entered into this development, including multiple caretakers, the latter two of whom

are very anxious people, much separation from the mother, and undoubtedly factors indigenous to the child herself. One can see, then, how a child whose mother seems to be quite perceptive, sensitive to the child, and interested in interacting with her, would not have been exposed to this sort of caretaking as her primary experience. The almost inevitable result of this is that the child turns from his social world and concentrates on himself and his physical surroundings--which is exactly what this child has done. In fact, it appears that she is becoming a classic obsessive-compulsive.

The second discrepancy to be explained deals with subject #5, a little boy. Why would a mother who is perceptive, delighted in her child, responsive to him, and very permissive, and whose child was classified B_1 in the Strange Situation, receive such a low rating on quality of interaction? Doesn't this conflict with previous data (Ainsworth and Bell, in press. a.) indicating that maternal variables of this class almost invariably cluster? The answer lies in the difference between maternal behavior appropriate for the one-year-old and that appropriate for the two-year-old.

While it seems particularly important for the mother to give in to her baby's demands (to a point) during the first year of life, during the second year the emphasis changes somewhat to <u>combining this complicity</u> with attempts to show the child that his mother too has desires and plans,

and that he must learn that the process of give-and-take is a necessary and enjoyable part of life. The child of six or eight months is, of course, unable to understand this, but the child of two years is able to do so. The rating scale on quality of interaction incorporates this assumption in the construct of reciprocity. This is what this particular mother did not encourage. In fact, she gave in to the child on almost everything. This shows up in the scale of mother's response to the child's assertiveness, and was carried over into their vocal and play interaction in the form of letting the child initiate and guide all interaction, and responding passively to all the child's directions. While somewhat appropriate for the first year, this sort of behavior is quite inappropriate for the second year. The mother's behavior becomes more comprehensible when one considers a major thread in her conscious attitude toward child-rearing.

This woman is a member of the "New left," women's radical organizations, etc., and feels that many (if not all) of the miseries of the world are caused by our society. She feels that she must prepare her child for this repressive society by making him very independent, and has felt this way since her son was born. She does not want to "squash" his spirit. Therefore, she lets him have his way as she herself says, "all the time."

Thus we can see that while most of the other scales are equally applicable to both year one and year two, the scale on quality of

interaction is not--it applies to a new issue which is related, but not identical, to the issue of attachment. This will be taken up in a subsequent section of the results and in the discussion.

III. Results of the Cookie Test

As stated in the section on methods of analysis, no a priori method of analyzing or coding this situation has been developed, since this is the first use of the situation in this context, and there are not enough subjects to allow a classification to arise from the data. Therefore, a synopsis of each subject's response will be presented and then discussed in terms of the situation's applicability.

Subject #1. Immediately upon putting the cookie on the table, mother (M) begins talking to the child (C), trying to talk him out of going after the cookie by distracting him. I tell her that she shouldn't do this. C looks at the cookie and vocalizes. M says, "After I'm finished." C immediately throws himself on the floor and cries hard. He remains crumpled on the floor for some time. He then slaps at M, and gets up and pushes angrily at the table. For the rest of the five minutes he alternates between crying, fussing, and pushing at the table. M continues trying to distract C, even in the face of my continual instructions to the contrary. She succeeds momentarily a couple of times. Finally she asks me if she could please give him the cookie, and I comply. C looked directly at M once during the situation.

Subject #2. C reaches for the cookie twice, pulling M's hand away the second time. M responds by covering the cookie and repeating her instructions. C fusses once and reaches again. M responds as instructed. C slaps M's hand once. He lets out with one short cry and then cups his hands over the cookie so that he isn't touching it, yet is guarding it carefully. It's very cute and M can't help laughing. C voices a protest (like "come on, stop fooling around"), and then settles down and waits, alternating between looking at M and at the cookie. M laughs again and C makes a happy vocalization. He continues to wait, still watching M. Then he falls, gets up quickly, reaches for the cookie, touches it, withdraws his hand, and then touches it again and picks it up. M says, "OK," and C smiles and begins eating the cookie.

Subject #3. Before M even has a chance to put the cookie down, C is fighting with her for it. She is screaming at the top of her lungs. Both M and C are flailing their arms, M to keep C away, and C to get to the cookie. M has to yell to be heard over C's screaming. Now C turns to M and pulls her hair, hard. M yells at C again. M lets go of the cookie and immediately C grabs for it again. M repeats the instructions. C tries to pull M's hair again, and M holds C away from her with one hand and holds the other hand over the cookie. C walks around the table, grabs the pen and bangs it on the table. M takes her hand off the cookie and again C immediately goes for it. M covers it and C starts screaming again, harder

than ever. I tell M to let her have it now, and C is immediately quiet and calm when M gives it to her.

Subject #4. C reaches for the cookie, M gives her the instructions, and C withdraws her hand and fusses once. She looks at M, slaps her hand very lightly, and then says, "Mommy?" She walks around the table, stands and alternates between looking at the cookie and at M. She vocalizes happily, and asks M for it "nicely." She starts to reach again, withdraws her hand and looks at the cookie. Looks up at M and vocalizes, and bends way over the cookie, keeping her hands at her side. M repeats the instructions. C looks at M, and then sits on the sofa, looking at M and the cookie, until M tells her she can have it.

Subject #5. C reaches for the cookie and M gives him the instructions. C makes a fake cry and reaches again. This continues with M repeating the instructions. Each time C's cry becomes more convincing. He says, "I wanna cookie," and continues reaching for it. He gives M a hurt, angry look, walks around the table, and tries to pull the pen from M. He's half-crying, half-vocalizing in an angry tone. Now he goes over to a desk and starts pulling out the drawers and tossing papers around. He runs to the table, reaching and screaming at M to "go away!" Continuing to scream and cry, he violently pulls at her to get her away from the table. He hits at M and continues screaming and hitting her until the observer ends the situation prematurely.

2

Subject #6. C reaches for the cookie and M gives her the instructions. C withdraws her hand and vocalizes to M about the cookie. She makes one, mad little jump and reaches again. She begins to cry and goes to M and puts her head in M's lap. She continues to cry softly and talks to M about the cookie. She reaches again, and squats and cries after M tells her she can't have it yet. Then she gets up and leans against M, continuing to talk about the cookie. Now she indicates that she wants to be up on M's lap. It was obvious that M didn't know whether to pick her up or not, and since I didn't say anything, she didn't. C continues to cry softly and tries, until the end of the session, to climb up on M's lap.

In discussing this situation, it should first be mentioned that, without exception, the children responded to it as they characteristically respond to similar situations in their everyday experience. Indeed, this is one of the advantages of this particular situation: it is almost the prototype of those situations in which the child must learn to delay gratification, realize what the mother is demanding of him, and attempt to influence her plan to more closely coincide with his own. In this sense it has an advantage over the Strange Situation, in that while the latter has been found to be predictive of both a child's relationship with his mother, and his typical behavior-at-home, the child's behavior in that situation is not always identical with that behavior-at-home (Ainsworth et al., 1969, d.).

Table 3

Results of the Cookie Test and
Selected Maternal Ratings

Subject Number	Reaching	Aggression	Crying	Willingness to wait	Disintegration	Approach to Mother*	Evidence of Planning and Perception of Mother's Plan	Quality of Mother's Interaction	Response to Child's Assertiveness
6	2	0	2	1	1	1, 2, 3	vocal persuasion; retreat to M; change of behavior	8.8	6.8
4	1	1	1	2	0	1, 2	asks for cookie; waits; change of behavior	6.8	4.8
2	2	1	1	2	0	1, 2	cups cookie; waits; change of behavior	6.6	5.5
5	3	3	3	0	2	0	change of behavior; tantrum; force	4.5	7.8
3	3	3	3	0	2	0	no change; force; aggression	4.0	6.3
1	0	2	3	0	3	0	no change; no plan	3.2	4.0

0=none; 1=little; 2=moderate; 3=much

*0=none; 1=looks at mother; 2=talks to mother; 3=approaches mother

As Table 3 shows, even in a sample this small, a number of trends seem apparent. If we view the behavior of subjects 6, 2, and 4 as being in some sense more reciprocal and as involving more adaptive behavior than subjects 5, 1, and 3 (i.e., vocal persuasion, cupping the cookie, and waiting vs. blind persistence, "naughty" attempts to divert M from the cookie, and disintegration), then we see that this more adaptive planning behavior is associated with little or no aggression, little crying, approach to the mother, and integrated composure, whereas the less reciprocal responses are associated with--and composed of--the converse of the above. It does not appear that persistence of reaching distinguishes between the two groups, although a larger sample would be needed to establish this with any certainty.

Certainly all the subjects (with one possible exception) had a plan of one sort or another. The distinction rests on whether or not the child took his mother's point of view into account when "formulating" his plan, admittedly a skill which is very primitive at this point in the child's development. This distinction is further divided into three parts: (a) whether the child even sees his mother as having a plan of her own, (b) whether or not he is willing to alter his own set-goal (to get the cookie immediately) in the face of this disparity, and (c) how and to what extent he attempts to alter his mother's plan in order to bring it into conformity with his own.

In the case of the three children with more "adaptive" responses, it is not at all difficult to account for the above three aspects. It is safe to assume that those children who waited for the cookie, or who changed from reaching for it to some more complex plan, realized that their mother had a goal. They were also willing to change their own plan in the direction of bringing it closer to hers (as evidenced by the change in behavior). There are differences, however, in the extent to which each child attempted to alter his mother's plan, and in the nature of that attempt. Subjects 4 and 6 can certainly be said to have attempted changing their mother's plan, by asking her for the cookie. Subject #6 tried continually to persuade her mother, while subject #4 tried this only once. On the other hand subject #2, and eventually subject #4, decided to wait it out instead of attempting to change their mothers' plan, #4 by sitting on the sofa and waiting and #2 by holding his hands over the cookie as if protecting it.

While it is fairly easy to assess the above three subjects with respect to whether and to what extent they took their mother's point of view into consideration, it is not as clear with the remaining three subjects. Certainly subject #5 saw his mother as having a plan, since he changed his own approach from that of reaching to that of disturbing the contents of a desk in order to get his mother away from the cookie. It is also certain that subjects #3 and #5 were not willing at all to alter their own plans in

order to bring them more into conformity with those of their mothers. However, since subject #3 began fighting for the cookie even before her mother had a chance to communicate her own plan, we have no certainty that this little girl was aware of her mother's plan (although we must assume that she was <u>able</u> to understand it). Both subject #3 and subject #5 attempted to alter their mother's plans--#3 by battling her mother for it, and #5 by trying to get his mother to leave the cookie.

Finally, subject #1 is a particularly interesting and difficult case, and to understand this particular situation, a note about the mother is necessary. This mother is a very disturbed person. She appears to be a manic-depressive whose relationship with and care of her child can only be characterized as very arbitrary. She seems to treat him very much as an "extension" of herself, and offers the child very little in the way of predictable feedback of any sort. Similar to Ainsworth's findings (Ainsworth and Wittig, 1969), this child was classified C_1 in the Strange Situation.

In looking at this child's response to the Cookie Test, one is impressed with the lost, disintegrated quality of it. However, since this child does have a moderate vocabulary, we must assume that in some sense he understood his mother's plan. This is supported by the fact that he paused and looked at her for a moment after she gave him the required instructions. It appears, however, that this made him terribly anxious,

and he was neither able to formulate a plan of his own nor attempt to alter his mother's plan, except by crying in a very infantile way which couldn't even be called a tantrum. That he couldn't formulate a plan of his own is suggested by the fact that he never reached for the cookie once during the situation.

In summary, it appears that it would be productive to view the results of the Cookie Test not only along the lines of the child's actual response or plan, but also along the lines of his ability to take his mother's point of view, or plan, into account. This latter construct is further divided into three aspects: (a) whether the child is able to see his mother as having a plan, (b) whether he is willing to alter his own plan in the face of this disparity, and (c) how and to what extent he attempts to alter his mother's plan in order to bring it into conformity with his own.

IV. Comparison of the Cookie Test with Selected Maternal Ratings

Returning to Table 3, we see another very interesting correlation, i.e., the outcomes of the Cookie Test with the ratings of the two maternal scales. Without exception, and as hypothesized in the Introduction, those children with "adaptive" responses to the situation have mothers who were rated high on "Quality of Interaction," and those with more "maladaptive" responses have mothers who were rated low on that particular scale.

Furthermore, within each group of three subjects, the more adaptive response is correlated with the higher ratings. In determining the order of "adaptive" response, the criterion was the relative number of aspects of "taking the mother's point of view" which each child exhibited--aspects defined in the previous section of results. Therefore, the ordering was done independently of the maternal ratings, making the results even more suggestive.

As Table 3 shows, the data also support the second hypothesis related to this issue of what maternal behavior serves as the most beneficial setting in which the child can develop the ability to alter his plans to achieve the same set-goal. The hypothesis was that the degree of strictness or permissiveness which characterized the mother would not, as such, determine the child's ability to respond "adaptively" to the Cookie Test, i.e., that the outcome of the Cookie Test and the ratings on the "Response to Assertiveness"-scale would not correlate. In fact this is the case: the ratings appear to be quite random. Thus much support is lent to the hypothesis that reciprocity in day-to-day interaction is more important than the mother's strictness or permissiveness in the development of a child's ability, not only to delay gratification and be "obedient," but also to work jointly with another person in the face of conflicting plans. In the writer's opinion, these are the most important findings of the present study.

V. Comparison of the Strange Situation and Cookie Test

The final hypothesis to be tested deals with the relationship between the development of attachment and that of the ability to interact with the mother in a truly reciprocal manner, or to form what Bowlby refers to as a "partnership," (Bowlby, 1969). The question was: does attachment serve as a foundation for this subsequent development, and if so, does the attachment relationship determine in any way, or restrict, the possible directions of that latter development? Stated in a more operational manner: will the outcomes of the Strange Situation correlate with the results of the Cookie Test, and if so, is it a simple correlation or is it more complex? The hypothesis as stated in the introduction was that given an outcome of the Strange Situation in the "B"-group, any outcome would be possible in the Cookie Test, although there would be a moderate correlation between this B-group and the "adaptive" response to the Cookie Test. However, given a response to the Strange Situation in either the "A" or "C" groups, this would be correlated significantly with the more "maladaptive" responses to the Cookie Test.

Table 4 shows that this seems to be the case. All children in the B-group were at least moderately "adaptive," and both children in the other groups responded in a "maladaptive" fashion. Furthermore, in keeping with the hypothesis, one of the children in the "B"-group showed "maladaptive" behavior also, in that he was the child who disturbed the

Table 4

Comparison of Cookie Test and
Strange Situation

Subject Number	Strange Situation	Cookie Test*
6	B_1	4
5	B_1	2
4	B_2	4
2	B_3	3
3	A_1	1
1	C_1	0 or 1 (?)

* This score indicates the number of components (as discussed in the text) that the child incorporated into his attempt to obtain the cookie.

contents of the desk in his attempt to distract his mother from the cookie. This example illustrates the thesis that while a child may have a secure attachment to his mother, this in no way assures him of weathering this subsequent development successfully, since there are new issues involved which might elicit less appropriate behavior patterns on the part of either the mother or the child. This will be taken up further in the discussion.

The findings discussed can be summarized as follows:

1. It appears that there is support for the hypothesis that once an

attachment relationship has become stabilized, it retains much constancy at least through the second year. The major changes appear to be in the forms mediating the behavior. A corollary to this hypothesis is that the Strange Situation will be applicable at age two, just as it is at age one. This was also supported.

2. There appears to be a correlation between the results of the Strange Situation, the child's balance of proximity and exploratory behavior, and the following maternal variables: (a) mother's perception of the child; (b) her delight in the child; (c) her response to his initiations of interaction; and (d) the quality of their interaction. On the other hand, as hypothesized, these do not correlate as highly with those scales dealing with the mother's initiation of interaction, her response to the child's assertiveness, or her encouragement of achievement.

3. It appears useful to view the results of the Cookie Test not only along the lines of the child's ability to delay gratification, and along the lines of his actual response, but also along the lines of the degree to which he takes his mother's point of view into account, and how he manifests this decrease in egocentrism.

4. Much support is lent to the hypothesis that the nature and degree of reciprocity that the child and mother manifest in their day-to-day play and vocalization are much more important in the development of the

ability to "give and take" than the degree of strictness or permissiveness exhibited by the mother.

5. Finally, support was presented for the hypothesis that attachment does serve as a "foundation" for the development of a truly reciprocal "partnership," and furthermore, that it is able to restrict the number of possible outcomes to this subsequent development.

DISCUSSION

As stated in the Introduction, the purpose of the present paper has been to identify the issues that confront the two-year-old child in the realm of his social development, and to study these issues and their relevant variables. We are now in a somewhat better position to discuss this in a general way. The first question is: precisely what is or are the issue(s)?

At this point we can definitely say that the issue is not "independence." The present data point strongly to the fact that the two-year-old, as much as the one-year-old, uses his mother as a secure base from which to explore, and that he seeks proximity to her as much as the younger child. However, as Bowlby states (1969), the conditions under which attachment behavior is elicited, and the actual behaviors elicited, do change. Thus the present writer disagrees with Maccoby's thesis (1969) that actual contact-seeking behavior, and contact via more distance receptors are functionally distinct. The present thesis is that both are attachment behaviors, and serve the same function. In other words, the class of behaviors remains constant, although the forms of mediation do change.

If the issue is not independence, is it possibly "autonomy?" Webster's Dictionary defines autonomy as a "functioning independently of other parts." While this did seem to be the issue with some of the more "abnormal" children, it did not with those who seemed to be developing

more optimally. With these latter children the issue seemed to be just the opposite, or functioning in conjunction with other parts, i.e., the mother. Thus, if we are studying the development of the "normal" child, we must also eliminate this possibility. However, Erikson does seem about to put his finger on the issue when he discusses the "mutual regulation" necessary during this stage (1950, p. 252).

Assessing the value of the concept "control" is somewhat more difficult. One of the problems seems to be whether one is looking at the behavior from the point of view of the child as an isolated unit or at the behavior of the mother-and-child as the unit. As Bowlby states, in the first three quarters of the first year of life the child makes no planned attempt to achieve his set-goals. Either the necessary conditions obtain, in which case he is content, or they do not, in which case he is distressed. In other words, his behavior is not yet "goal-corrected." Toward the end of the first year, however, he becomes more skillful. He begins to discover the conditions that obtain the set-goal, and is able to plan (see also Piaget on "Intentionality," 1952). In fact, Bowlby goes on to say that, "as a consequence, during the second year he develops a will of his own (p. 351)."

Certainly this seems similar to the concept of control. The question, however, is the child trying to control something, or is he trying to obtain a goal--and these are surely not the same thing. Referring

again to Webster's Dictionary, we find control defined as, "to regulate; to exercise control over; to direct or command." Obviously in the vast majority of instances this is not what the child is trying to accomplish; rather, as stated above, he is trying to obtain a goal.

Furthermore, with respect to attachment behavior for example, the goal is not to regulate the mother's behavior in any sense, but to achieve proximity, a situation that involves a mutual relation with the object of attachment. In the normal situation this relation becomes such that the set-goals of the child and the mother coincide, and cannot even be conceptually separated. MacKay (1964) states the issue most succinctly in an article on communication and meaning:

> Consider . . . the case where two systems A and B are on equal footing. Each is open to goal-adjustment, though each evaluates externally imposed adjustment negatively for feedback purposes. Here a genuinely "social" situation can develop. Each can pursue its goals only by taking into account the goals of the other, not only as facts about the world, but as potential members of its own goal-hierarchy. To the extent that B's goal-directed activity can alter the goals of A, and vice versa, it may become impossible to attribute certain goals to A or B alone. The social unit formed of A + B-in-interaction becomes a goal-seeking system in its own right (pp. 175-176).

Earlier, in discussing mutual attempts to alter goal-complexes, he states:

> Where this is the case (as normally in dialogue), it may become logically impossible to dissociate the two goal-complexes. The individuals have acquired a relationship in which their individualities have partly merged. They constitute for certain purposes a single goal-directed system (p. 163).

Thus it is proposed that even when taking the child in isolation as the unit of observation or analysis, the term "control" is inappropriate (in the normal situation). Instead, it seems that Bowlby's idea of "plans" and the capacity to construct working models is much more relevant. However, even this is proposed with the qualification (and Bowlby would probably agree), that at least in normal development, it be considered within the context of "reciprocity," which appears to be the "true" or overriding issue during this phase of development.

As indicated above, this process of reciprocity is one which becomes independent of the behavior of its elements, and involves the elements' (in this case the mother and child) reacting to each other's signals in a manner that might be called "circular causality via feedback loops." However, while the "causality" actually lies in the circular nature of the interaction, it is possible to consider each element separately. This in fact was done in the case of the Cookie Test, where the mother's behavior was constrained. Through these means we could more easily evaluate the child's part in the circular process. However, at some point in the analysis or conceptualization, the behavior of that isolated element must be put back into the context of the unit as a whole.

Another relevant question is: what is the ontological course of this development? Unfortunately, the present study did not incorporate longitudinal observations into its procedure, and in that sense suffers

greatly. The answer to this question must await observations of this nature, but some general statements can be made about it at this time from the knowledge we have about the first year of life, and from the present data.

First of all, in a functional sense we can see that reciprocity is present in the mother-child dyad from the birth of the child, although this is not intentional on the child's part at that time. The development that takes place is in the nature of the reciprocity and the relative amount that each partner assumes in achieving it. Specifically, the responsibility lies largely with the mother at the time of the child's birth, and over the course of childhood, the youngster assumes more and more of it, until it is shared jointly. As for the nature of this development in the child himself, it would appear to follow much the same course as Bowlby's "plans" and "goal-corrected" behavior, or "intentionality" and the decline of egocentrism in Piaget's terms (see for example, Flavell, 1963). One of the first major developmental changes certainly comes about when the child is able to make plans, or use true intentionality (about 8 to 12 months). Whereas earlier the child was not able to see his mother as having a goal or plan, this development would allow for the transition from one inter-organism feedback loop, i.e., the mother's, to two, i.e., mother and child. Another major point would occur when the child is able to enter into a social unit of this sort that contains more than two persons

(see MacKay, 1964). Even at these points we cannot say that the child is very skilled at behaving in a reciprocal manner, just as the baby of 18 months who has internalized a true sense of causality can be said to understand the cause of everything he sees. What is meant by both of these statements is that in some sense the child has what might be called a "set" for reciprocity or causality, both of which he will spend a number of years expanding.

A third pertinent question concerns the relationship between attachment and reciprocity. The question as proposed in the introduction is: does reciprocal behavior belong to the class of attachment behaviors? The present findings seem to indicate that they don't exist in a one-to-one relationship, --but this proves nothing in itself.

One possible approach to the problem is to look at the context in which each occurs. If they are indeed the same issue, then they should occur in the same context. While no supporting evidence is presented, the observations seem to indicate that while the child <u>does</u> attempt to change his mother's set-goal with respect to proximity (and this is certain to be the area in which the behavior first occurs), the overwhelming amount of reciprocity takes place in the context of interaction. In fact, one gets the impression that when attachment behavior is elicited, real interaction does not subsequently appear in the majority of instances. Since proximity and interaction must certainly be viewed as different

set-goals, it appears that reciprocity is more applicable to the latter than to the former.

Another approach is to assess the necessity for reciprocity--or the child's attempt to change the mother's set-goal--with respect to attachment. If there were no further (and more important) use for this reciprocity, then why could not the development of attachment end with the phase in which the child actively approaches the mother himself? He would certainly be able to achieve enough contact so that he wouldn't have to attempt to change his mother's set-goals, for whenever there is any real danger to the child, his mother needs no encouragement from him to gain and maintain contact. However, there are possible counterarguments to this, so for the final approach we must examine the nature of the behaviors in terms of their evolution and biological function. This in turn, can be done through hypothetical reconstruction of man's own evolution, and by means of comparison with what appear to be homologous behaviors in the lower primates.

One of the most notable characteristics of man as a species is that he works with others to achieve a common goal, whether it be recreational or food-getting. This in turn requires a high degree of both social organization and the ability to influence and respond to the behavior and signals of other members of that particular population. Indeed, this is precisely what we are observing in the two-year-old's developing ability to make plans, influence others, and be influenced by others. Could it not be then,

that whereas the biological function of attachment behavior is protection from predators, the function of this reciprocity is the transition from the more-or-less exclusive mother-child dyad to assimilation into the larger social organization?

This possibility seems even less remote when one compares the two-year-old human with lower primates at a comparable developmental level. While these infants are still much concerned with the whereabouts of the mother, they are beginning to spend much more time with "aunts," other infants, and older males. One of the major developments during this time is in learning to respond appropriately to the many communicative signals (see for example, DeVore, 1965).

Assuming then, that man evolved in the context of small bands, in which soon after the advent of locomotion in the child, he could begin widening his world beyond the former (admittedly vague) boundaries of his mother and himself, would not this same development apply to him? If so, we could propose that this "goal-correction" or reciprocity is a different class of behavior from attachment, having the "predictable outcome" of continued interaction and the biological function of admission to the larger social organization. We would then have to question the appropriateness of including it as a phase in the development of attachment. Again however, it is stressed that among its first uses would be its application in the context of proximity-seeking. This would be in keeping with the

remainder of Bowlby's theory however, in that the attachment behavior and that of goal-correction or reciprocity would be integrated or organized hierarchially with each other. Further research is needed to answer the question with any certainty, but the present writer is inclined to agree with Ainsworth (1967) that the final phase in the development of attachment per se deals with its internalization, enabling the child to spend progressively more time away from the mother. Perhaps we are seeing the beginnings of this in the mediation of attachment via more distance receptors. Finally, the closely interwoven nature of attachment and reciprocity is adaptive in the sense that the child is able to use his mother as a secure-base from which to explore not only the physical environment, but also to take much of the initiative in exploring and assimilating himself into the larger social organization, a process which requires an almost infinitely higher degree of reciprocity than does exploration of the physical environment.

In concluding, if the findings presented are valid, then there appear to be certain implications for parents and child-therapists.

Both Ainsworth (1967) and Bowlby (1969) discuss the question so often raised by parents concerning "spoiling" a child by always giving in to his demands for proximity. They conclude (with data to support the conclusion) that the child is the best judge in this matter, at least at this age. One might then say, "Granted this, but when the child reaches the

age of two years, doesn't he need firm control (or at the other extreme, much freedom) in order to develop those characteristics valued by our society?" No doubt he needs some of each, and the present thesis is not meant to deny either this or the problems that every parent faces with an occasionally stubborn and persistent child. Rather the data indicate that if we continue viewing the issues in these terms exclusively (or even primarily), we will be missing the most important issues for the child, which are the construction of working models of his world, and their application in a setting in which he may be confronted by goals or plans which differ from his own.

If parents take what appears to be the biological function of this issue as their goal in child-rearing, i.e., the ability of the child to enter into and work within the larger social organization, the present data appear to offer a new point of view. Since in our society the child of this age must construct his models of the world almost exclusively on the behavior of his own parents, the new point of view would suggest that they concentrate more on presenting the child with stable and workable models, adjusted to the level of the child's own abilities, and involving much give and take on <u>both</u> the parents' and child's sides. As further indicated, the best context for this development is that of play and vocal interaction in which the "partners," in the process of working toward a common goal, and while taking into account the limitations in each other's abilities, ". . . acquire a relationship in which their individualities have partly merged . . . and . . . constitute . . . a single goal-directed system."

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