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AUTHOR Tracy, Russel L.; And Others
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ABSTRACT

This paper presents some findings of a detailed analysis of infants' approach behavior in a familiar, naturalistic setting. A total of 26, white, middle-class infant-mother pairs were observed in the home every three weeks during the first year of the child's life. Instances of infant approach to both mother and observer were coded from the narrative accounts recorded by the observer. A median age of 30 weeks was determined for the onset of approach behavior. Discussion focuses on the following areas: approaches to mother only, in context ("following," "greeting," or "spontaneous"), and whether partial or full; types of infant touching behavior of mother and observer; and types of behavior (social, object-oriented, social plus object oriented, or mere proximity) toward mother and observer. Data tables are included. (ED)

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Proximity Seeking in the First Year of Life
as Related to Attachment

Russel L. Tracy

Michael E. Lamb

and

Mary D. Salter Ainsworth

Johns Hopkins University

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An attachment may be defined as an affectional bond, which promotes the maintenance of a certain degree of proximity to the figure to whom one is attached (Ainsworth, 1972). From the third quarter of life onward, locomotor approach assumes perhaps the major role among infant behaviors which serve the attachment bond. Today, I would like to present some findings of the first, detailed analysis of approach behavior in a familiar, naturalistic setting. I will first discuss infant approach to mother to provide an overview of this behavior, and then will present a comparison of approaches to mother vs. to a relatively unfamiliar person to show the ways in which differential proximity seeking may serve as criteria for an attachment bond. But first, our method.

We studied the 26, white, middle-class infant-mother pairs with which Mary Ainsworth has been conducting a longitudinal investigation of attachment. The sample was obtained through local

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pediatricians; 16 infants were boys; 10 girls. The raw data consist of detailed narrative accounts of infant behavior in the home during observations spaced every 3 weeks over the first year of life. During a visit the observer would typically assume a responsive, but relatively non-interventive role while making notes.

Beginning with the onset of infant locomotion, all instances of infant approach to any person were coded from the narratives. From each coded approach, we tabulated various descriptive aspects, which I will present when reporting our findings.

We found the onset of approach behavior to occur at a median age of 30 weeks. From the onset, infants approached relatively unfamiliar persons as well as attachment figures. Eighty-three percent of the approaches occurred in the fourth quarter of the first year. During the third quarter, infants were just beginning to be capable of locomotion and were more frequently confined to playpens so that they were not as free to approach.

We identified 4 main contexts in which approach occurred. They were: following, elicited by a person's leaving the room, greeting, elicited by a person's entering the room, 3 additional types of elicited approaches including approach in response to a person's movement about the room, offer of food or toys, or call to the infant, and spontaneous approaches—those seemingly undertaken entirely on the infant's own initiative. An approach was called "full" if the approach left the infant 3 feet or less from the person approached, and "partial" if it left him more than 3 feet from the figure. (Full

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approaches were also analyzed for touching and other features, which I'll discuss a bit later.)

The first row of Table 1, which you have before you, presents the portions of total approaches to mother during the fourth quarter which occurred in each approach context. About half all approaches occurred spontaneously, and this proportion rises to two-thirds if we consider only full approaches in row 2. This suggests that even during the first year, the infant is an active initiator rather than a passive respondent in his approach to his attachment figures. Also worth noting are two further findings. First, Table 1 indicates that approaches in the context of greeting accounted for a very small proportion of total approaches to mother. Second, now turning to Table 2, we find that approach in the context of following, but not in any other context, is mainly partial in degree. I'll have more to say about these two points later.

We called an approach "distressed" if, at any time during the process of locomoting toward a figure, the infant made unhappy sounds, fussed, or cried. Only 12% of all fourth quarter approaches to mother involved distress, so defined. If we return to Table 1, row 3, we see that a distressed approach was most likely to have occurred in the context of following when mother left the room. Most of the remaining distressed approaches occurred in spontaneous circumstances. We think the main point of these results is that they show approach to attachment figures is rarely motivated by manifest distress or anxiety in the familiar, home environment.

Given the theoretical importance of contact seeking to attachment theory, we were particularly interested in how often infants expressed an appeal to be picked up and held after having fully approached their mothers. A pick-up appeal was scored if the infant displayed fussing, crying, reaching, clambering up or attempting to do so, and clutching at or clinging to the figure. During the third quarter, 33% of full approaches to mother involved such appeals to be picked up; the fourth quarter figure was quite comparable at 28%. About two-thirds of the pick-up appeals were displayed immediately after the infant achieved close proximity to his mother. As might be expected, an infant who had fully approached his mother when he was distressed was much more likely to appeal to be held by her than when his affective state during approach had been relatively tranquil. In the third quarter, mothers rejected pick-up appeals about 20% of the time, but in the fourth quarter, 51% of the time. This apparent increase in maternal rejection was not significant, however, due to wide, intra-S variability.

Let us now turn to a comparison of approach to the mother with approach to a relatively unfamiliar person--the observer. This analysis concerned only those spontaneous approaches that took place when both persons were present in the room.

During both third and fourth quarters, about 60% of these spontaneous approaches were made to mother; 40% to the observer, regardless of whether the approaches were full or partial. Differentiability of approach behavior was manifested most sharply, however, in approaches

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in which a pick-up appeal was implicit, and in approaches made by the infant when he was distressed.

Infant appeals to be held, after having made a full approach, strongly discriminated approaches to mother from those to the observer. A total of 110 pick-up appeals were observed in the second half-year after approach to mother or observer. All but two of these were directed to the mother. This extreme differentiability was highly significant and seemed to confirm the importance assigned to close physical contact by the ethological-evolutionary theory of attachment (Ainsworth, 1972; Bowlby, 1969). Parenthetically, I would like to mention that, for those 14 infants who were also seen to approach their fathers, pick-up appeals to father occurred almost equally often as to mother, following a full approach by the infant.

Let us now consider mere touching, rather than the close physical contact implicit in being picked up and held. You can see from Table 3, row 1, that babies were not significantly more likely to touch the mother than they were to touch the observer. We distinguished between social and non-social touching--non-social touching being touching the person in the course of expressing primary interest in an object near or possessed by the person. Social touching tended to occur more frequently with the mother than with the observer, although the significance level is only 7%. In contrast, touching that involved a pick-up appeal was displayed exclusively to the mother. It accounted for 13% of all touching of the mother, and did not occur with the visitor at all.

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Of 48 instances of approach made by the infant when he was distressed, all but one were made to mother rather than observer. Also highly differential, this finding strongly supported Bowlby's hypothesis that the intensity of attachment behavior is heightened by organismic states such as distress or anxiety. Bowlby views such heightening as favoring survival by ensuring that the child remains sufficiently near a protective attachment figure in potentially dangerous situations.

In our search for infant behaviors which might differentiate approach to the mother from approach to the observer, we examined infant behaviors displayed in proximity to each figure. For each instance of full approach to the mother and to observer, we classified infant behavior which was displayed upon achievement of close proximity into one of four mutually exclusive categories. These were: social (including smiling, vocalizing, social touching, appealing to be picked up, and showing toys), object-oriented (including an interest in an object adjacent to or possessed by the person), social and object-oriented (a combination of one or more social and one or more object-oriented behavior, such as smiling at the person while reaching for an ashtray), and mere proximity (which involved being near a person without exhibiting clear social or object-directed behavior).

Table 4 presents the results. When relative proportions of full approaches involving the various types of behavior in proximity were examined, a greater percentage of approaches to mother were social. Object-oriented approaches, on the other hand, were more than three times as frequent, proportionately, to the observer. The two remaining behavioral

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classes did not significantly distinguish between approach to mother versus to observer. It appears that infants are more sociable with their mothers but more interested in object play and exploration following approach to the observer.

A finding of considerable interest to us was the apparent "inconsistency" of the infants' behavior toward the observer. More specifically, why should a baby who so readily approaches and even touches the observer almost never appeal to be picked up by him? One possibility is that infants experience wariness (or "stranger anxiety") which inhibits the expression of this highly social gesture. This account does not seem cogent for two reasons. First, it makes difficult explanation of why relative frequency of mere touching did not prove to be differential to mother, since a wary infant would not be expected to touch a person who was eliciting wariness. Second, wariness would presumably lead the infant to spend less time in proximity, having achieved the latter, to observers as compared with mother. This time differential, with longer periods spent in proximity after approach to mother, was observed for only a small fraction of approaches.

It seems more likely that the infant approaches and touches the observer, but does not appeal to him for holding, because the state of being held by the observer would reduce the infant's perceived access to his mother. The importance of the perceived accessibility of one's attachment figures has also been stressed by Bowlby (1973). This concept is also relevant to approach to mother in the contexts of greeting and following. Most approaches in following are partial in degree--they do not result in close proximity. It is suggested

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that the infant who follows his mother when she leaves the room is attempting to increase her accessibility as perceived by him to a more comfortable level. Since this increase can usually be achieved via a moderate increase in proximity, the predominance of partial approach in following seems explained. The very low incidence of approach to mother in greeting yields to a similar analysis. By her return to the room mother renders herself easily accessible to her infant, thus making approach in this context seldom necessary.

In some respects the present findings may seem to disagree with those found in laboratory studies which have, for example, used Ainsworth's strange situation. Specifically, such studies have found approach to and, especially, touching of the stranger infrequent. It must be recognized, however, that laboratory situations of this kind involve much greater stress, since they use an unfamiliar setting, rather brief exposure to totally unfamiliar adults, and often separation from an attachment figure. It would appear that the stress-induced heightening of attachment behavior overrides the affiliative or social behavior displayed at home to a friendly adult who is relatively unfamiliar.

To conclude, we feel our findings represent an important first step in characterizing approach behavior in familiar, naturalistic settings, and that they demonstrate the value of detailed, descriptive analysis to the study of attachment behavior.

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Table 1

Fourth Quarter Infant Approaches to Mother
as Related to Approach Context

<u>Median Per Cent of</u>	<u>APPROACH CONTEXT</u>			
	<u>Spontaneous</u>	<u>Following</u>	<u>Greeting</u>	<u>Other-Elicited*</u>
All Approaches	53.8	29.0	3.2	15.0
Full Approaches only	66.7	11.8	5.4	16.1
Distressed Approaches only	33.4	37.4	5.9	20.6

*Sum of approaches in response to mother's calling, offering a desired object, and moving about within the room.

Table 2

Proportions of Fourth Quarter Approaches to Mother
within Contexts which were Partial as vs. Full

<u>Median Per Cent of</u> <u>Approaches which</u> <u>were:</u>	<u>APPROACH CONTEXT</u>			
	<u>Spontaneous</u>	<u>Following</u>	<u>Greeting</u>	<u>Other-Elicited</u>
Full	91.5	24.0	72.0	91.0
Partial	8.5	76.0	28.0	9.0

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Table 3

Relative Proportions of Three Types of Infant Touching
Upon Full Approach to Mother vs. Observer

<u>Median Per Cent</u> <u>Touching Type:</u>	<u>PERSON APPROACHED</u>		<u>Significance*</u>
	<u>Mother</u>	<u>Observer</u>	
All	25.0	18.0	N.S.
Social	25.0	13.0	.07
Highly social	11.2	0.0	.001

*Wilcoxon Test

Table 4

Relative Proportions of Four Types of Behavior
in Proximity upon Full Approach to Mother
vs. Observer

<u>Median Per Cent</u> <u>of Approaches to:</u>	<u>BEHAVIORAL TYPE</u>			
	<u>Social</u>	<u>Object-</u> <u>Oriented</u>	<u>Social and Ob-</u> <u>ject Oriented</u>	<u>Mere</u> <u>Proximity</u>
Mother	58.0	9.0	4.0	28.0
Observer	32.9	33.0	7.0	17.0
<u>Significance*</u>	.01	.002	N.S.	N.S.

*Wilcoxon Test