

Attachment to Soft Objects: Its Relationship With Attachment to the Mother and With Thumbsucking

MH Van IJzendoorn, FA Goossens, LWC Tavecchio, MM Vergeer,
and FOA Hubbard

Department of Pedagogics, University of Leiden

ABSTRACT: In this article, two investigations into the attachments of Dutch children to objects like cuddlies and blankets are reported upon. In the first study (n=140), the hypothesis of Spock that attachment to objects and thumbsucking are strongly related is tested. This hypothesis proved only partially to be correct. In the second study, (n=66) Ainsworth's hypothesis that attachment to objects is especially prevalent among securely attached children, is tested. The results of the Strange Situation point out that anxiously and securely attached children do not differ in their attachments to objects. Sex differences in this regard will also be discussed.

Introduction

Attachments of young children to cuddlies and security blankets are a fairly common phenomenon in Western culture. Passman and Halonen¹ found in their sample of 690 American mothers of children between one and a half and 63 months that about 60% of the children were attached to a soft object. In a Dutch survey among 352 mothers of preschoolers between 2 and six and one-half years of age, 57 percent were found to be attached to an object.² Yet relatively little is known about the background of this phenomenon. The soft objects can reduce anxiety, insecurity, and tension and therefore exert a positive influence on the exploratory drive and achievements, provided the situation is not too stressful.^{3,4} Children especially appreciate the presence of their favorite object in the following situations: when going to sleep; in stressful moments; when tired or ill; while inactive or

Thanks to J. Swaan en G. van Donselaar for their research assistance. Requests for reprints should be sent to Marinus H. van IJzendoorn, Department of Education, University of Leiden, Schuttersveld 9, fifth floor, 2316 XG Leiden, The Netherlands.

during long-lasting trips and stays away from home. In such situations, many children have to be accompanied by their favorite object, even though their parents may be in the direct vicinity.^{2,5,6} Cross-cultural research, however, seems to indicate that in cultures where the caregivers are permanently available even at night, the children hardly get attached to an object.^{7,8}

Most theories on attachments to inanimate objects stress the function of the object during involuntary separations from the caregiver. For instance, Winnicott's "transitional object"⁹ is mainly a symbol of the desired reunion with the mother. The object may be part of an external reality, but has the advantage of manipulation at will, contrary to the "good enough" mother who cannot and will not avoid involuntary separations. As such, the object represents the "ideal" caregiver, omnipresent and always accessible.¹⁰ Bowlby¹¹ interprets this phenomenon more as a substitute of attachment to persons when these are not available or accessible. In the course of evolution, attachment behavior has become part of the standard repertoire of every member of the human species and is directed towards a substitute object in 'dangerous' situations, when the natural object (the caregiver) is absent or inaccessible, for instance when the child is lying in bed. Given the choice between attachment figure and object, the attachment figure will generally be preferred.¹²

Against this theoretical background, two interesting hypotheses have been formulated. Firstly, Ainsworth¹³ suggested on the basis of Bowlby's ideas that attachment to a person is a precondition for attachment to an inanimate object; the latter, after all, is a substitute. She even suspects that only children with a secure attachment are able to supply themselves with the substitute of a favorite cuddly. This would effectively parry Rejecki, Lamb and Obmascher's criticism¹⁴ that the ethological attachment theory fails to explain how children become attached to a totally insensitive and unresponsive object. Secondly, especially in information to young parents the experts^{15,16} usually stress the harmless character of attachments to objects, while at the same time suggesting that it often goes together with thumb- or fingersucking. In their view, both phenomena serve the same function, i.e. satisfaction of the need for security in a developmental phase in which the caregiver is no longer available at all times to satisfy this need.

In this article, we report on research into the relationships between attachment to objects, to persons and thumb- or fingersucking. In line with Spock,¹⁵ we expect to find more thumbsucking amongst those

children who are attached to an object. In addition, we also assume that attachment to persons is a precondition for attachment to objects, and we will test Ainsworth's¹³ hypothesis that especially securely attached children will direct their redundant attachment behavior towards inanimate objects.

Method

The first study on the relationship between attachment to objects and thumbsucking was carried out in a survey amongst 140 mothers of young children (mean age: 26 months; standard deviation 5.4, 55 percent were boys, 44 percent girls and 1 percent was missing). The socioeconomic status of the respondents was somewhat unevenly distributed; the higher echelons were overrepresented (mean score 4.6 on a scale that ranges from 1 [low] to 6 [high]). A questionnaire was sent to the mothers with items on attachments to inanimate objects and thumbsucking. Attachment to objects was described in terms of relative inseparability and strong, emotional reactions to a (possible) separation from the object. The responses to these items were checked for inconsistencies with one other question included elsewhere in the questionnaire. Only one parent appeared to be inconsistent in her answers and was deleted from the sample. Only children who had been attached to an object for more than six months were considered to be attached so as not to confuse attachment to objects with a temporary preference for a certain toy.¹⁷ Only a few children attached to an object for less than six months proved to be "attached," only 8 of the 140 children in the first study and 3 of the 66 in the second study. These cases did not meet our criterion and were therefore not considered to be "attached."

The second study concerned the relationship between attachment to persons and attachment to objects. Sixty-six mother-child dyads participated in the Strange Situation procedure.¹³ Mean age of the children (48% girls; 52% boys) was 24 months; the standard deviation was negligible. The mean socioeconomic status was 3.5 on the same six-point scale as used in study 1. Attachment to objects was measured in the same way as in the first investigation. Reliability and validity of the Stange Situation procedure have been discussed in a separate article.¹⁸ The procedure consists of seven increasingly stressful episodes of three minutes each, involving being introduced to a stranger, being left by the mother, being left alone and being reunited by both the stranger and the mother. To assess the quality of the attachment relationship, the behavior of the child is scored on six 7-point rating scales which take into account the frequency, intensity, and latency of specified behavioral components. The scales are for proximity and contact seeking, maintenance of contact, resistance, avoidance, search behavior, and distance interaction. The pattern of the scores on these scales, and especially the scores on the first four scales in the return episodes 5 and 8, then results in a final assessment in terms of A (anxiously avoidant), B (secure), or C (anxiously resistant) children, which may further be divided up into sub-

groups (A1, A2, B1, B2, B3, B4, C1, C2). Two observers scored independently of one another on 22 randomly selected mother-child pairs; the intercoder reliability was good; for proximity seeking in episodes 5 and 8 $r=.77$ and $.91$ respectively; for maintaining contact $.95$ and $.97$, respectively; for resistance $.88$ and $.92$, respectively; for avoidance $.86$ and $.91$ respectively. The intercoder agreement for the classification was 95.5 percent; for the subgroups 91 percent ($n=22$). "Interinvestigator" reliability was also good.¹⁸ A preliminary study of nine mother-child pairs showed that the stability of the classifications can be considered high: during a period of one month, all children remained in the same main group; only one changed subgroups.¹⁹

Results

The first study revealed about 40 percent of the 140 children to be attached to an object, while 55 percent were not attached (no data were available in 5 percent of the cases). In the same group, 55 percent appeared to suck their thumb, while 44 percent did not. A weak correlation was found to exist between age and attachment to objects ($r=.18$; $n=133$, $p2=.02$; two-tailed): the older the children, the more often they were found to be attached to soft objects. Attachment to objects

TABLE 1: ATTACHMENT TO AN OBJECT AND THUMBSUCKING ($n=140$)

	No thumbsucking	Thumbsucking	
not attached to an object	38	37	75
attached to an object	21	35	56
	59	72	131

($r=\phi=.13$; $p1=.035$)

(9 missing)

was found to occur more often in the higher socioeconomic groups than in the lower ones ($r=.17$; $n=133$; $p_2=.02$; two-tailed). Neither thumbsucking nor attachment to objects correlated with sex, nor did age or socioeconomic status show a relationship with thumbsucking. As expected, a weak correlation was found in our sample between attachment to objects and thumbsucking.

The null hypothesis, that no relationship existed, had to be rejected, yet the correlation was weak ($r=\phi=.13$; $n=131$; $p_1=.035$; one-tailed). Children who are attached to an object seem to suck their thumbs slightly more often than their nonattached peers. This relationship showed up more clearly in the sample of boys ($r=.22$; $n=71$; $p_1=.015$; one-tailed), and in the higher age category of 2.5 years and older ($r=.28$; $n=30$; $p_1=.035$; one-tailed). A somewhat stronger correlation could also be shown to exist among the children from the higher socioeconomic classes (the levels 5 and 6); here the correlation was .26; ($n=78$; $p_1=.005$; one-tailed). In interpreting these findings, the reader should bear in mind the maximum value the Pearson product moment correlation coefficient can attain in the case of dichotomous variables. The coefficient is, in fact, a phi, which for the relationship between thumbsucking and attachment to objects can never surpass .78.

In the second investigation, the percentage of children attached to an object was somewhat lower than in the first: 38 percent versus 53 percent nonattached children: no data were available in 9 percent of the cases. Due to the relatively small sample size, a discussion of the relationship between attachment to persons and objects with respect to the background variables of sex and socioeconomic status will be

TABLE 2: STRANGE SITUATION CLASSIFICATION AND ATTACHMENT TO OBJECTS

	Classification							
	A1	A2	B1	B2	B3	B4	C	
not attached to an object	3	3	10	6	4	8	1	35
attached to an object	0	6	8	4	3	4	0	25
	3	9	18	10	7	12	1	60

(6 missing)

omitted. There are two possible explanations, which may even work interactively, for the lower percentage of children attached to an object. The first study showed attachment to objects to be more prevalent among children from the higher socioeconomic classes and among older children. In the second study, both these categories, i.e., the higher socioeconomic groups and the older children, are underrepresented in comparison to the first study. The children were distributed as follows among the different attachment (to persons) classifications: 19 percent were anxiously avoidant, 79 percent were securely attached while only 2 percent were anxiously resistant (four tapes could not be used, due to technical failure). In Table 2 a summary is found of the different attachment (sub) classifications and the corresponding data on attachment to objects.

Obviously, Ainsworth's¹³ assumption about the relationship between attachment to inanimate objects and the security of the attachment relationship with the caregiver, is not entirely confirmed by our data.

TABLE 3: OBJECT ATTACHMENT AND SCORES ON THE INTERACTIVE SCALES

Interactive scores	Not attached to an object		Attached to an object		t	P
	X	SD	X	SD		
<u>Episode 5</u>						
Proximity seeking	2.91	1.36	2.52	1.08	1.20	.23
Contact maintaining	1.57	1.04	1.20	.50	1.66	.10
Resistance	1.83	1.10	1.60	.87	.87	.39
Avoidance	2.83	1.18	3.04	1.31	-.66	.52
<u>Episode 8</u>						
Proximity seeking	3.51	1.74	2.68	1.44	1.97	.05
Contact maintaining	2.29	1.76	1.68	1.65	1.35	.18
Resistance	2.11	1.28	2.40	1.44	-.81	.42
Avoidance	2.68	1.39	2.84	1.18	-.45	.65

Quite a few securely attached children are not attached to an object. Dividing the children up into two categories, i.e. securely attached and insecurely attached, allows us to test the hypothesis. Combining A1, A2, and C on the one hand, and B1 to B4 on the other hand resulted in an $r = \phi = .05$ ($n = 60$; $p_1 = .18$; one-tailed). Even when the "borderline group" B4 is subsumed under the anxiously attached category (see Van IJzendoorn et al.¹⁸), the correlation is far from impressive. It is, however, noteworthy that there is quite a difference in correlation between the two sexes. In the subgroup of girls, a significant correlation was found between attachment to persons and to objects ($\phi = .2$; $p_1 = .03$; $n = 31$; one-tailed); securely attached girls appeared to be less often attached to a cuddly than insecurely attached ones. This correlation even increases if we subsume the B4 children under the anxiously attached children ($\phi = .35$; $p_1 = .01$; $n = 31$; one-tailed). An opposite trend can be seen in the subgroup of boys. Here, the securely attached boys do seem to have a cuddly more often than the insecurely attached boys ($\phi = -.19$; $p_1 = .08$; $n = 29$; one-tailed). This is even more the case when the B4 category is subsumed under the anxiously attached group ($\phi = -.45$; $p_1 = .004$; $n = 29$; one-tailed). In Table 3, a summary for the entire group is given of the relationship between attachment to soft objects and the separate scores on the four interactive scales of the reunion episodes.

It is clear that children who are attached to inanimate objects do not respond differently from nonattached children. After a short separation in the strange situation, the attached children seem to seek proximity to and contact with the mother slightly less intensively than the nonattached children.

Discussion

The study on the relationship between attachment to soft objects and thumbsucking provides the expected results. The null hypothesis that no relationship or the opposite relationship exists, could in any case be rejected. The extent of the correlation, however, is not very satisfactory in view of the theoretical expectation.¹⁵ There is no reason to assume that only children who successfully deal with potentially threatening situations through oral behavior (for instance thumbsucking) make use of soft objects, as Boniface and Graham²

suggest. In view of these results, it must be questioned whether attachments to soft objects and thumbsucking are the only compensatory strategies of young children in the case of the temporary inaccessibility of their attachment figure. It is possible that other, as yet unknown means of satisfying the need for security, for instance at the level of mental representation, are being put to good use. (cf. Winnicott,⁹ who speaks of transitional phenomena). This might explain why children with a strong need for compensation, resort to only one of the means studied here, i.e. the soft object or the thumb. It might also be an explanation for the phenomenon of some children being neither attached to an object nor sucking their thumb (29% of the children in the first study). The rather frequently occurring inaccessibility of parents in Western culture may lead to less visible compensatory strategies like imagination and fantasy. These strategies have the advantage, independent of the presence of an object, of being available at will to provide comfort and security.

Ainsworth's assumption¹³ about the existence of a relationship between the quality of attachment to persons and the presence or absence of attachments to objects was not supported in our study. Both anxiously and securely attached children display attachment behavior to objects, provided we do not take account of sex differences. Although securely attached children have, in general, less of a fixation upon one figure, usually the mother, and very often have more than one attachment-figure,¹³ this does not mean that they are more often attached to an object than anxiously attached children. The reverse, i.e. a stronger need among the anxiously attached preschoolers for a substitute due to their experiencing every separation from the attachment figure as a threat, is not borne out by the facts. The quality of the attachment relationship to the mother does not seem to explain the presence or absence of attachments to inanimate objects. This reasoning does, however, obtain for the boys: they are more often attached to objects when they have a secure bond with their mother. For the girls, the reverse seems to hold: anxiously attached girls appear to be attached to a favorite cuddly more often than their securely attached peers. This study does show that attachment to soft objects does not need to be related to emotional and behavioral disturbances.²¹ In a stressful, strange situation there is no difference in behavior between children who are attached to soft objects and children who are not. In any case, attachment to an inanimate object does not seem to be an impediment to a secure attachment relationship.

References

1. Passman RH, Halonen JS: A Developmental Survey of Young Children's Attachments to Inanimate Objects. *J Genet Psychol* 134:165-178, 1979.
2. Van der Veer R, Van IJzendoorn MH: Gehechtheid van jonge kinderen aan een object, *Kind Adolescent* 2:21-36, 1981.
3. Passman RH, Weisberg P: Mothers and blankets as agents for promoting play and exploration by young children in a novel environment: the effects of social and nonsocial attachment. *Developmental Psychol* 11:170-177, 1975.
4. Passman RH: Arousal reducing properties of attachment objects: Testing the functional limits of the security blanket relative to the mother. *Developmental Psychol* 12, 1976.
5. Busch F: Dimensions of the first transitional object. *The Psychoanal Study Child* 29:215-229, 1974.
6. Litt CJ: Children's attachment to transitional objects: a study of two pediatric populations. *J Am Orthopsychiatry* 1:51, 1981.
7. Gaddini R, Gaddini I: Transitional objects and the process of individuation: a study in three different social groups. *J Am Acad Child Psychiatry* 9:347-365, 1970.
8. Hong KM, Townes BD: Infants' Attachment to Inanimate Objects: A cross-cultural study. *J Am Acad Child Psychiatry* 15:49-61, 1976.
9. Winnicott DW: Transitional objects and transitional phenomena. *Int J Psychoanal* 34:85-97, 1953.
10. Greenacre P: The fetish and the transitional object. *Psychoanal Study Child* 24:144-164, 1969.
11. Bowlby J: Attachment and loss. Vol I: Attachment. Harmondsworth, Penguin, 1971.
12. Passman RH, Adams RE: Preferences for mothers and security blankets and their effectiveness as reinforcers for young children's behaviors. *J Child Psychol Psychiatry* 23:223-236, 1982.
13. Ainsworth MDS, Blehar MC, Waters E, Wall S: *Patterns of Attachment. A Psychological Study of the Strange Situation*. New Jersey: Lawrence Erlbaum Associates, 1978.
14. Rajecki DW, Lamb ME, Obmascher P: Toward a general theory of infantile attachment: a comparative review of aspects of the social bond. *Behavioral Brain Sciences* 1:417-464, 1978.
15. Spock B: *Baby—en kinderverzorging*. Amsterdam: B. Bakker, 1978.
16. Leach P: *Baby en kind. Het volledige en praktische handboek voor de verzorging van kinderen*. Amsterdam: Kosmos, 1979.
17. Furby L, Wilke M: Some Characteristics of infants' preferred toys. *J Gen Psychol* 140:207-219, 1982.
18. Van IJzendoorn MH, Tavecchio LWC, Goossens FA, Vergeer MM: How B is B4? Attachment and security of dutch children in Ainsworth's Strange Situation and at home. *Psychol Reports*, 52:683-691, 1983.
19. Goossens FA, Swaan J: De Strange Situation in Nederland: verslag van een vooronderzoek. *Kind Adolescent* 4:67-79, 1983.
20. Boniface D, Graham P: The three-year-old and his attachment to a special soft object. *J Child Psychol Psychiat* 20:217-224, 1979.
21. Garrison W, Earls F: Attachment to a special object at the age of three years: Behavior and Temperament characteristics. *Child Psychiatr Human Development* 12:131-141, 1982.