



**Universiteit
Leiden**
The Netherlands

Developments in cross-cultural research on attachment: some methodological notes

IJzendoorn, M.H. van

Citation

IJzendoorn, M. H. van. (1990). Developments in cross-cultural research on attachment: some methodological notes. Retrieved from <https://hdl.handle.net/1887/1436>

Version: Not Applicable (or Unknown)
License: [Leiden University Non-exclusive license](#)
Downloaded from: <https://hdl.handle.net/1887/1436>

Note: To cite this publication please use the final published version (if applicable).

Developments in Cross-Cultural Research on Attachment: Some Methodological Notes¹

Marinus H. van IJzendoorn

University of Leiden, The Netherlands

Key Words. Attachment · Cross-cultural methodology · Cross-cultural research · Cross-cultural validity · Culture-specific aspects · Imposed etic validity · 'Strange Situation' procedure

Abstract. In this paper the development of cross-cultural research on attachment is discussed. It is argued that the universality hypothesis cannot be disproved by findings of divergent attachment classification distributions in cross-cultural studies. Furthermore, the search for a culture-free procedure to measure attachment may not be a fruitful strategy to establish the cross-cultural validity of attachment theory. Cross-cultural research should focus on testing theoretical predictions derived from attachment theory, especially the responsiveness hypothesis and the competence hypothesis. Paradoxically, 'falsifying' outcomes of cross-cultural studies may be ascribed either to general validity problems or more specifically to a lack of cross-cultural validity.

The task of cross-cultural research on attachment is to identify what is universal and what is culturally variable in the development of attachment between caregivers and children [LeVine, 1984]. In attachment theory, strong claims for the universality of the attachment phenomenon have been put forward. Attachment, defined as a relatively

lasting affective relationship between a child and one or more specific persons with whom the child regularly interacts [Bowlby, 1971; Ainsworth et al., 1978], has been hypothesized to have universal biological roots that can only be understood from an evolutionary perspective [Bowlby, 1971]. It has been claimed that the attachment behaviors of the immature and helpless members of the species, and the corresponding behaviors of their parents or equivalent adults, have the function of protecting the offspring from

¹ The author acknowledges the helpful comments of Mary Main on an earlier draft of this paper.

danger, at least in the so-called 'environment of evolutionary adaptedness'. The genetic bias of the child's need to become attached and to be in close physical (and later psychological) proximity to a protective caregiver continues to exist even in cultural environments which, in the past thousands of years, have become far removed from the original environments in which the species developed during an evolutionary period of millions of years [Bowlby, 1971].

In this paper, I consider the development of cross-cultural research to substantiate Bowlby's claims of the universality of the attachment phenomenon, and, specifically, studies using the 'Strange Situation' procedure to measure quality of attachment. I conclude that the universality hypothesis cannot be adequately proved nor disproved by findings of divergent attachment classification distributions in different countries and cultures. Japanese and Israeli researchers [Takahashi, this issue; Sagi and Lewkowicz, 1987] have suggested that the 'Strange Situation' procedure may not be a valid instrument for measuring attachment quality across cultures, because caregivers and infants experience the stressful laboratory situation in very different ways. They have proposed constructing a culture-free, or at least less culturally biased instrument to be applied in countries like Japan and Israel. I argue, however, that the search for a culture-free procedure may not be a fruitful strategy. Cross-cultural research should focus on testing predictions derived from attachment theory. If these predictions are supported by evidence from several different cultures, the universality hypothesis will be more plausible, whatever differences in attachment classification distributions across cultures are found.

Cross-Cultural Studies Using the 'Strange Situation' Procedure

One of the first empirical studies on attachment was carried out by Ainsworth [1967] in Uganda. Her famous Baltimore study, which was to be the cornerstone of attachment theory [Bell and Ainsworth, 1972; Ainsworth et al., 1978], was originally designed to replicate her African results in the US. These comparative studies supported the notion that attachment development was basically the same in the two cultures. In both cultures, 1-year-olds try to stay in close proximity to the caregiver(s), especially in threatening situations, and in both cultures they use their caregiver(s) as a safe haven from which to explore the environment. Although these first comparative studies were only exploratory, the universality hypothesis seemed to be supported by their results. Several research projects were carried out to test this hypothesis more thoroughly, not only in Western European countries like Sweden [Lamb et al., 1982], West Germany [Grossmann et al., 1981], Great Britain [Smith and Noble, 1987], and The Netherlands [Van IJzendoorn et al., 1985], but also in Japan [Durrett et al., 1984; Miyaki et al., 1985; Takahashi, 1986], Israel [Sagi et al., 1985], and Africa [Kermoian and Leiderman, 1986].

These recent comparative studies make use of a standardized procedure to measure quality of attachment. The availability of this instrument, the 'Strange Situation' procedure [Ainsworth and Wittig, 1969; Ainsworth et al., 1978], is one of the main reasons for the interest in attachment theory and its application in cross-cultural research [Van IJzendoorn and Tavecchio, 1987]. The 'Strange Situation' is an observational proce-

ture based on two assumptions: (1) Being placed in a strange environment, being confronted with an unknown person, and being left behind by the caregiver are stressful circumstances to the child and activate attachment behavior; and (2) the return of the caregiver is sufficient to relieve the stress for children with a secure attachment relationship but not sufficient for those with an insecure one [Grossmann et al., 1981]. The 'Strange Situation' consists of 8 phases, the last 7 of which should ideally last 3 min each. Following instructions (phase 1), caregiver and child are left in a strange environment, the laboratory playroom (phase 2). In phase 3 a stranger enters, who after three mins. signals the caregiver to leave (phase 4). In the next phase (5) the caregiver returns, only to leave again in phase 6. The stranger reenters the room in phase 7, and in phase 8 the caregiver returns once more. If the infant is upset, the researcher is supposed to terminate the procedure. In the US, separation periods seldom last as long as 3 min. In other countries, experimenters sometimes seem to follow the guidelines somewhat too strictly, thereby causing too much stress in the infant. All phases are videotaped and scored afterwards on several behavioral scales. Quality of attachment is categorized as A (anxiously avoidant), B (secure), or C (anxiously resistant). Type C children are called anxiously resistant because after the return of the attachment figure they both resist contact and seek proximity simultaneously; they seem very frightened and unhappy. Type A children show little fear or sorrow but on reunion they avoid their caregiver either by turning away or by looking away. Type B children show little or no anxious attachment behavior, such as resistance or avoidance. Type B children may cry and maintain

physical contact after reunion with the caregiver, but the caregiver can readily provide relief [Ainsworth et al., 1978].

Divergent Patterns of Attachment

Using the 'Strange Situation' to measure quality of attachment, Ainsworth et al. [1978] found a 'normative' American pattern of about 20% anxious-avoidant, 70% secure, and 10% anxious-resistant parent-child dyads. In Bielefeld (West Germany), however, a much higher percentage of anxious-avoidant dyads was found (about half of the sample were classified as such), and in Japan and Israel (kibbutzim), a high percentage of anxious-resistant dyads was found, although the majority of the Japanese and Israeli infants could be classified as securely attached. These deviations from the 'normative' pattern were considered to cast doubt on the universality hypothesis. Researchers tried to interpret their results as indicating strong cultural differences in attachment development. In Northern Germany, it was suggested, parents stress autonomy much earlier than American parents, thereby urging their infants to show autonomy in stressful situations and not to rely too much on parental proximity. In Japan, infants would almost never experience separations from the mother. The 'Strange Situation' would therefore be especially strange for the Japanese children and elicit extremely anxious behavior. Israeli kibbutzim infants would rarely interact with unknown persons, although they live in a multiple-caregiver environment. Their interactions with the stranger in the 'Strange Situation' could therefore also be expected to elicit strong feelings of anxiety. These explanations were invoked to account

for the divergent attachment classification distributions from the perspective of attachment theory as a universally valid theory.

At the same time, it was suggested that the 'Strange Situation' procedure is not a valid instrument for measuring attachment quality outside of American cultures, because caregivers and children experience the stressful laboratory situation in very different ways [Lamb et al., 1985; Sagi, this issue; Sagi and Lewkowicz, 1987].

Intracultural Differences

There are at least two reasons why this kind of cross-cultural debate on attachment has to be considered obsolete. First, a meta-analysis of nearly all attachment research done using the 'Strange Situation' showed that intracultural differences in attachment classification distributions were much larger than the intercultural differences [Van IJzendoorn and Kroonenberg, 1988]. Differences found within the US were as large as differences found in other cultures. Although the typical American distribution is about the same as Ainsworth's 'normative' distribution, within the US a large number of significant deviations from this 'normative' pattern can be found. In Germany and Japan, as well, tremendous differences in attachment classification distributions were found among samples within the same culture. The Japanese city sample of Durrett et al. [1984], with a distribution of 5 anxious-avoidant, 24 secure, and 7 anxious-resistant infants, resembled Beller and Pohl's [1986] Berlin sample, with a distribution of 7 anxious-avoidant, 31 secure, and 2 anxious-resistant infants, more than both resembled other Japanese and German samples. Our conclusion was that if the 'Strange Situation' is a valid instrument for assessing quality of

attachment within the US [see Bretherton, 1985, for several arguments in favor of this premise], there is no reason to doubt its cross-cultural validity simply because we sometimes get somewhat different distributions in Western Europe, Japan, or Israel than in the US. In recent years the cross-cultural debate on attachment has often been based on fragmentary, limited evidence, with the risk of capitalizing on unreliable data from small samples isolated from other attachment studies done in the same culture.

A Culture-Free 'Strange Situation'?

Second, though now it has rightly been stressed that attachment classification distributions per se do not constitute strong evidence in the cross-cultural debate, the cross-cultural validity of the 'Strange Situation' procedure has been brought into question. The procedure has been criticized because it assumes an identical experience of stress in all cultures. Moreover, it would seem to favor cultures in which children are used to daily separations from their main caregivers and meet unknown persons fairly frequently. The assumption of identical experience of stress is warranted only if the procedure is curtailed whenever the infant becomes too upset to function normally. Curtailed procedures can be scored in a reliable and valid way [Oppenheim et al., 1988], and early termination of the procedure could prevent infants from becoming too distressed to be consoled in a relatively short period of time – as sometimes seems to be the case in one of the Japanese samples. Classifying Japanese infants on the basis of the first half of the procedure resulted in a rather common distribution of attachment relationships [Takahashi, 1986], suggesting that flexible application of the 'Strange Situation' procedure

could have led to a normal pattern of attachments in this sample.

In general, the search for a so-called culture-free test, i.e., a culture-free procedure to measure attachment, will not be fruitful because it presupposes universality instead of proving it. Instead of 'begging the cross-cultural question', it may be a better strategy to apply an instrument already developed within a particular theoretical (and cultural) framework, to search for differences in outcome in different cultures, and to try to explain these differences theoretically [Frijda and Jahoda, 1966]. A theory is only bound to a particular culture if it is not able to explain cultural differences, but these differences themselves do not restrict the universality of a theory. Cross-cultural research should not lead primarily to descriptions of universal empirical trends, but to explanations of cultural differences [Jahoda, 1979]. Searching for universal trends implies looking for absence of differences between cultures, that is proving the null hypothesis and thus risking type II errors [Brown and Sechrest, 1979]. If there are about 1300 cultures in this world [Lonner, 1979], it is, strictly speaking, impossible to establish the universality of a certain phenomenon through the method of induction, except in the most trivial instances. Therefore, cross-cultural research on attachment should focus on cultural differences instead of uniformities, in order to gain insight into the universal and the culture-specific aspects of attachment.

Beyond the Current Cross-Cultural Debate

My main thesis is that the cross-cultural validity of attachment theory should be confirmed or falsified through the testing of the-

oretical predictions across cultures, instead of looking for resemblances and differences between attachment classification distributions or 'going beyond' the 'Strange Situation' procedure and adapting the instrument to the specific cultural circumstances. In fact, the 'imposed etic validity' [Berry, 1979] has to be emphasized. Attachment theory consists of a series of propositions linking several different variables to each other. If it is possible to find in several cultures the same correlational pattern between determinants and consequences of attachment as has been found in the US, the imposed etic validity of the theory will have been established.

In the case of attachment theory, there appear to be at least two correlational patterns that would need to be replicated in other cultures before the theory's cross-cultural validity can be established. First, the caregiver's responsiveness to the child's signals is considered to be one of the most important determinants of attachment quality [Ainsworth et al., 1978]. More responsive caregivers establish a secure relationship more often with their children than do unresponsive caregivers. Responsiveness does not have to stand for the same caregiving behaviors, but possibly implies culturally variable ingredients [Hinde and Stevenson-Hinde, this issue]. Second, during preschool years secure attachment relationships should stimulate social-cognitive competence more than anxious attachment relationships [Bretherton, 1985; Grossmann and Grossmann, this issue]. The responsiveness hypothesis and the competence hypothesis constitute the core of attachment theory. The first hypothesis underlines the influence of the caregiving environment on quality of attachment, as opposed to organismic determi-

nants, thus emphasizing the interactionist perspective. The second hypothesis implies the central place of attachment in child development, thus emphasizing the ethological perspective.

It has to be kept in mind, however, that these hypotheses have not yet been tested thoroughly enough to be considered confirmed. For example, Ainsworth's pioneering Baltimore study on the relation between maternal responsiveness, infant crying, and attachment has still to be replicated in the US [Goldsmith and Alansky, 1987, Hubbard and Van IJzendoorn, 1987]. Attachment theory, therefore, constitutes a very fruitful and powerful heuristic without being empirically supported in every respect. Because of this unsettled validity question, it is not yet clear whether possibly disappointing results of cross-cultural research are to be ascribed to general validity problems of attachment theory or more specifically to its lack of cross-cultural validity.

References

- Ainsworth, M D S (1967) *Infancy in Uganda: Infant care and the growth of love*. Baltimore MD: Johns Hopkins University Press.
- Ainsworth, M D S, Blehar, M C, Waters, E, & Wall, S (1978) *Patterns of attachment: A psychological study of the Strange Situation*. Hillsdale NJ: Erlbaum.
- Ainsworth, M D S & Wittig, B A (1969) Attachment and exploratory behavior of one-year-olds in a strange situation. In B M Foss (Ed), *Determinants of infant behavior* (Vol IV). London: Methuen.
- Bell, S M, & Ainsworth, M D S (1972) Infant crying and maternal responsiveness. *Child Development* 43: 1171-1190.
- Berry, J W (1979) Introduction to methodology. In C Triandis & W W Lambert (Eds), *Handbook of cross cultural psychology Vol 2 Methodology* (pp 1-28). Hertfordshire: Prentice-Hall.
- Bowlby, J (1971) *Attachment and loss Vol I Attachment*. Harmondsworth: Penguin.
- Bretherton, I (1985) Attachment theory: Retrospect and prospect. In I Bretherton & E Waters (Eds), *Growing points of attachment theory and research Monographs of the Society for Research in Child Development* 50 (1-2, Serial No 209), 3-38.
- Brown, E D, & Sechrest, L (1979) Experiments in cross-cultural research. In C Triandis & W W Lambert (Eds), *Handbook of cross cultural psychology Vol 2 Methodology* (pp 297-318). Hertfordshire: Prentice-Hall.
- Durrett, M E, Otaki, M, & Richards, P (1984) Attachment and the mother's perception of support from the father. *International Journal of Behavioral Development* 7: 167-176.
- Frijda, N, & Jahoda, G (1966) On the scope and method of cross-cultural research. *International Journal of Psychology* 1: 109-127.
- Goldsmith, H H, & Alansky, J A (1987) Maternal and infant temperamental predictors of attachment: A meta-analytic review. *Journal of Consulting and Clinical Psychology* 55: 805-816.
- Grossmann, K E, Grossmann, K, Huber, F, & Wartner, U (1981) German children's behavior towards their mothers at 12 months and their fathers at 18 months in Ainsworth's Strange Situation. *International Journal of Behavioral Development* 4: 157-181.
- Hubbard, F O A, & Van IJzendoorn, M H (1987) Maternal unresponsiveness and infant crying: A critical replication of the Bell and Ainsworth study. In L W C Tavecchio & M H van IJzendoorn (Eds), *Attachment in social networks: Contributions to the Bowlby-Ainsworth attachment theory* (pp 339-379). Amsterdam: Elsevier.
- Jahoda, G (1979) Theoretical and systematic approaches in cross-cultural psychology. In C Triandis & W W Lambert (Eds), *Handbook of cross cultural psychology Vol 1 Perspectives* (pp 69-141). Hertfordshire: Prentice-Hall.
- Kermouan, R, & Leiderman, P H (1986) Infant attachment to mother and child caretaker in an East African community. *International Journal of Behavioral Development* 9: 455-469.
- Lamb, M E, Hwang, C P, Frodi, A, & Frodi, M (1982) Security of mother- and father-infant attachment and its relation to sociability with a

- stranger in traditional and non-traditional Swedish families *Infant Behavior and Development* 5 355–367
- Lamb, M E , Thompson, R A , Gardner, W , & Char-nov, E L (1985) *Infant mother attachment The origins and developmental significance of individual differences in Strange Situation behavior* Hillsdale NJ Erlbaum
- LeVine, R A (1984) Properties of culture An ethno-graphic view In R A Shweder & R A LeVine (Eds), *Culture theory Essays on mind self and emotion* (pp 67–86) Cambridge Cambridge Uni-versity Press
- Lonner, W J (1979) The search for psychological universals In C Triandis & W W Lambert (Eds), *Handbook of cross cultural psychology Vol 1 Perspectives* (pp 143–204) Hertfordshire Prentice-Hall
- Miyake, K , Chen, S J , & Campos, J J (1985) Infant temperament, mothers' mode of interaction, and attachment in Japan An interim report In I Bre-therton & E Waters (Eds), *Growing points of attachment theory and research Monographs of the Society for Research in Child Development* 50 (1–2, Serial No 209), 276–297
- Oppenheim, D , Sagi, A , & Lamb, M E (1988) Infant attachments on the kibbutz and their rela-tion to socio-emotional development four years later *Developmental Psychology* 24 427–433
- Sagi, A , Lamb, M E , Lewkowicz, K S , Shoham, R , Dvir, R , & Estes, D (1985) Security of infant-mother, -father, -metapelet attachments among kibbutz-reared Israeli children In I Bretherton & E Waters (Eds), *Growing points of attachment theory and research Monographs of the Society for Research in Child Development* 50 (1–2, Serial No 209), 257–275
- Sagi, A , & Lewkowicz, K S (1987) A cross-cultural evaluation of attachment research In L W C Tavecchio & M H van IJzendoorn (Eds), *Attach-ment in social networks Contributions to the Bowl-by-Ainsworth attachment theory* (pp 427–459) Amsterdam Elsevier
- Smith, P K , & Noble, R (1987) Factors affecting the development of caregiver-infant relationships In L W C Tavecchio & M H Van IJzendoorn (Eds), *Attachment in social networks Contributions to the Bowlby Ainsworth attachment theory* (pp 93–134) Amsterdam Elsevier
- Takahashi, K (1986) Examining the Strange Situa-tion procedure with Japanese mothers and 12-month-old infants *Developmental Psychology* 22 265–270
- Van IJzendoorn, M H , Goossens, F A , Kroonen-berg, P M , & Tavecchio, L W C (1985) Depen-dent attachment B-4 children in the Strange Situa-tion *Psychological Reports* 57 439–451
- Van IJzendoorn, M H , & Kroonenberg, P M (1988) Cross-cultural patterns of attachment A meta-analysis of the Strange Situation *Child Develop-ment* 59 147–156
- Van IJzendoorn, M H , & Tavecchio, L W C (1987) The development of attachment theory as a Laka-tosian research program Philosophical and meth-odological aspects In L W C Tavecchio & M H van IJzendoorn (Eds), *Attachment in social net-works Contributions to the Bowlby-Ainsworth at-tachment theory* (pp 3–33) Amsterdam Else-vier

Marinus H van IJzendoorn
 Department of Education
 University of Leiden
 P O Box 9507
 NL–2300 RA Leiden (The Netherlands)