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PRELIMINARY OBSERVATIONS ON JAPANESE INFANTS' BEHAVIOR IN AINSWORTH'S STRANGE SITUATION

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GENERAL REFLECTIONS ON THE STRANGE SITUATION

The strange situation has been originally developed by Mary Ainsworth and her coworkers at John Hopkins University in Baltimore in the 1960's. It was designed to validate many hours of observations with a small sample of infant-mother interactions in the home throughout the first year of the infant's life. The hypothesis, in part exploratory in nature, was as follows: If mothers are very responsive to the infant's needs, then the developing attachment relationship becomes secure. If mothers behave more unpredictably, or are not very responsive, the developing attachment relationship will be less secure. At the end of the first year a strange environment, a strange person, and brief separations were thought to constitute enough anxiety for arousing the infant's attachment system. Thus the strange situation was devised. The organization of the infant's behavioral system was expected to and did reveal qualitatively the consequences of differential mothers' responsiveness throughout the first year.

The strange situation as a standardized procedure is derived from an ethological paradigm. The main and governing principle is the infant's behavior, because it constitutes the basis from which conclusions about the behavior strategy to cope with an aroused attachment system have to be drawn. It is an escalating procedure in order to assure the arousal of the attachment system. There are 8 episodes. In the first one mother and infant are introduced into a friendly room containing a few play things. In episode 2 mother and infant stay there by themselves and are, in episode 3, joined by a friendly female stranger. In episode 4 the mother leaves the room, often without the infant noticing. In episode 5 she returns and the infant may already reveal his behavior organization in response to an aroused attachment system. In episode 6 mother leaves again, this time openly by saying bye bye to infant. In episode 7 the stranger returns and only in

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episode 8 the mother returns. The infants' responses in episode 8 quite often show appreciable differences as compared to episode 5, the first reunion.

As a standard, Mary Ainsworth (Ainsworth et al., 1978) has introduced a three minute duration for each episode of the strange situation. This is how the method has been most frequently used. However, in reality most researchers curtail later episodes if they become too stressful for the infant. In our own work with more than 200 strange situations sometimes episodized 6 and 7 together are no longer than 20 to 30 seconds. Sometimes some episodes are also prolonged, e. g. when three minutes were felt to be too short for calming an aroused infant appropriately, for instance, in episode 5, the reunion after the first separation.

It is important to view the strange situation not as a test, but as a research instrument which has been standardized to only a certain degree. Its main feature still is its exploratory nature designed to find out coping strategies under levels of stress manageable for an infant. This needs some ethological and control systems theory knowledge and very close scrutiny of the infants' behavior to interpret the strange situation in its intended meaning.

INTERCULTURAL RESEARCH WITH THE STRANGE SITUATION

The Hokkaido group (Miyake, Chen & Campos, 1985) was one of the first groups who used the strange situation in a non-western culture. It was the methodological center point of a large number of studies designed to reveal certain aspects of the socioemotional development of Japanese infants. One aspect concentrated on the infants' temperament (Tajima, 1984: 71-80; Usui & Miyake, 1985: 37-48; Miyake & Chen, 1985: 17-25; Nakano, Usui & Miyake, 1987: 37-44).²⁾ Some studies concentrated on maternal influences during the first year (Kanaya & Miyake, 1986: 31-42; Kanaya, Bradshaw, Miyake & Nakamura, 1988: 55-59). Other studies looked at the infants' behavior in situations other than the strange situation (Kanaya, 1984: 49-57; Chen, 1986: 17-22; Takahashi, 1988: 61-65). The main focus was to bring infant temperament and mothers mode of interaction together (Miyake, Chen, Ujiie, Tajima, Satoh & Takahashi, 1983: 25-49; Miyake, 1986: 9-15; Kanaya, 1987: 51-58; Miyake, Chen & Campos, 1985). A few studies undertook longitudinal predictions based on strange situation classifications (Nakano, 1984: 59-70; Nakano, Usui & Miyake, 1986: 43-55; Ujiie, 1987: 45-49; Tajima, 1987: 29-35). Still other studies evaluated Japanese attachment research in general on the basis of various data sets (Takahashi, & Hatano, 1982: 9-18; Chen & Miyake, 1984: 13-26; Miyake, Campos & Kagan, 1986: 1-12; Takahashi, 1986: 57-72; Bradshaw, 1987: 19-28). The strange situation in Japan has been critically evaluated by Ujiie and Miyake (1985: 27-36), Ujiie (1986: 23-29) and by Takahashi (1986).

One major point of interest in the strange situation data obtained in Hokkaido was the reported high percentage of infants classified as "C", insecurely ambivalently attached, together with a total absence of "A" classifications, insecurely-avoidantly attached. In van IJzendoorn & Kroonenberg's (1988) correspondence analysis solution,

2) Most of the references stem from the Annual Reports of the Research and Clinical Center for Child Development, Faculty of Education, Hokkaido University.

Keiko Takahashi's (1986) classification of the Hokkaido strange situations is loaded heavily (B=68% and C=32%) toward the C direction. She notes, however, that about half the C-type infants behaved inconsistently, they show B-typical behavior in episodes 2-5 but C-like behavior thereafter. Takahashi interpretes these inconsistencies in terms of the excessive stress caused by the procedure as well as Japanese child rearing customs which emphasize continuous closeness to the mother (Takahashi, 1986).

OUR CURRENT RESEARCH INTENTIONS

Our original plan was to analyze the videotapes made of cohort 2 (n=29) during the 8 month home visit in the families. Our goal was to employ a functional communication analysis (Grossmann, Grossmann & Schwan, 1986) to the tapes available. Unfortunately, the filming has concentrated greatly on the infants so that the mother often could not be seen. Many communications between infant and mother could be inferred only from observing the infant's signals and listening to the mothers frequently whispered responses.³⁾ During the work on the home visits and given the observations of Takahashi about the inconsistent or pseudo-Cs, doubts arouse as to whether the available classifications based on the original Ainsworth criteria were appropriate to serve as a set of data to be meaningfully related to the 8 months communication analysis. On the one side, there were some unresolved discrepancies between the data published by Takahashi, (1986) and those available from the Hokkaido group. On the other side, there are claims in the literature that the infants have been overstressed in the strange situation, as compared to the infants in West Germany, or in the U. S. So the second question became whether some infants' behavior in Japan could be seen as a response to being overstressed, which is not necessarily compatible with the original description of the "C" pattern as described by Ainsworth et al. (1978). Takahashi (1986) suggested that without the extreme stress for some infants, due to the long separations, many more of the infants would have been classified as "B". The implication, of course, would be that because of the culturally prescribed closeness between Japanese infants and mothers most infants would develop a secure attachment but that the culturally unusual situation of being all alone was too stressful for the infants to cope with.

In order to link meaningfully the home observations of mother-infant interactions to the infants' behavior in the strange situation, we are in the process of reviewing the strange situation tapes for a more detailed, individual description of the infants' behavior beyond the traditional classification schema.

For this preliminary observational report, the tapes of 12 infants classified as "C", or ambivalently attached to their mothers by the Hokkaido group from cohort I and II were carefully reviewed to detect similar and different behavioral strategies of these infants in comparison to German infants. Five tapes of infants classified as B were also viewed. We concentrated on the C-infants only because most controversy has arisen around the question in this Japanese sample there were many C-type attachments and whether the strange situation is too stressful for Japanese infants. The judgement of C

3) Training for coding the 8 month videotapes has been carried out between the authors and Margaret K.C. Ng (Hokkaido University) and Satoshi Takasaka (Yokohama National University). Reliability testing is in progress.

type attachment classification was taken from the name lists of the Hokkaido group. Other lists have not been considered.

SOME GENERAL REMARKS ON DIFFERENCES OBSERVED IN MATERNAL BEHAVIOR AND IN THE PROCEDURE WITHIN THIS GROUP OF "C" INFANTS AS COMPARED TO OUR GERMAN SAMPLE

a) *Maternal behavior*

At the beginning of the strange situation the Japanese mothers seemed very shy as compared to German mothers. After the instruction by the introducing person they sat down on the chair, did not try to engage their children in play and many of them barely responded to communicative or interactive advances of their infants. If the infant came to the mother, she tried to lure him away or reacted only minimally. This very quiet and almost withdrawn behavior of the mothers may have prompted many infants to seek contact and interaction with her in the second episode, which was seen much more frequently in this sub-sample than in our German sample. This has been commented upon already in several publications (e.g. Takahashi, 1986; Ujiie, 1986). Another cultural specific behavior is the mother's taking off and putting on of the slippers when she leaves or comes back onto the carpet. This, in many cases, prolonged her leave-taking and her approach which heightened the distress if the infant was already crying.

Otherwise the comforting and carrying behavior of the Japanese mothers appeared very comparable to the behavior of German mothers in similar situations.

b) *Administration of the strange situation procedure*

Introducing mother and child into the room: Apparently the introducing person advised the mother to put down her child near the toys and then sit down on her chair. There the mother found a journal to read and a list of the 8 episodes. Not one of the so far observed infants protested against this putting down, but also none of the mothers took time to introduce the child into the room or the toys. All mothers went to their chairs immediately after putting down the infant. We had the impression as if many infants were so surprised by this that they were immobile for a while. Then they looked around and then many infants went to the mother. The intensity and duration of contact with mother was variable.

Timing of the episodes: The first five episodes were usually sensitively timed. If the infant was doing well, the rhythm of three minutes of each episode was kept up. If an infant already showed distress in episode 2 or 3 these episodes were prolonged up to 12 minutes in one case. If an infant was much distressed during episode 4 the episode were curtailed a little, but it never lasted less than 2 minutes 10 seconds.

Episode 5 was also adjusted to the infants' state. Prolongation of episode 5 occurred many times (up to 8½ minutes). Of the 15 tapes reviewed, episode 5 was prolonged once for very long, because the mother nursed her baby after she failed to calm her; once for over 8 minutes, three times for over 6 minutes, two times for over 5 minutes, the rest was between 3 and 4 minutes.

The administration of episode 6 and 7 in Hokkaido was very different from our German administration of these episodes. In our two samples in Bielefeld and Regensburg

we would curtail an episode if the infant showed continuing fussing or as soon as the infant cried intensely. No infant cried for more than 30 seconds. In the 15 reviewed Hokkaido situations the episode 6 (infant alone) was skipped twice but in the rest of the cases it was at least 55 seconds long and at most 3 minutes long even if the infant was extremely upset. Also episode 7 (stranger and infant) was not curtailed to less than one minute even if the infant cried from the beginning very intensely. Thus adding up the crying time of episode 6 and episode 7, some infants cried as long as 4 minutes and 40 seconds in extreme despair.

In our opinion these infants' behavior in episode 8 cannot be judged with the same schema as in our German samples or the American samples because after such a long desperate crying, the attachment behavioral strategies might have broken down. In all infants who have cried very long, sobbing and whimpering was observed up to the very end of the whole situation even if the crying itself stopped while on the mother's arm. Ainsworth et al. (1978) reported a study where infants were seen in a strange situation only two weeks after a previous strange situation. In the repeated strange situation the infants cried more, sought for contact and proximity in the pre-separation episodes and also in the post-separation episodes. Since contact resistance did not increase in the repeated session, the mere amount of increased crying was not considered to be an indicator of an ambivalently attached baby. But many babies classified as A in the first session were classified as B in the second session because of their increased anxiety and contact behavior.

Differing behavioral patterns of the infants classified as " C "

According to Ainsworth's classifications the main criteria for classifying a child as ambivalently attached or C are conspicuous contact and interaction resisting behavior especially in episode 8, moderate and strong seeking of proximity and contact after reunion, little or no tendency to ignore his mother in the reunion episodes, much crying throughout the strange situation, difficulty to be soothed by the mother's presence, and some infants are conspicuous for their passivity and helpless crying. These infants explore little throughout the situation and they seem to be anxious as soon as the stranger enters the room. Their attachment behavior has a low threshold for high intensity activation, but they mingle resistance with contact maintaining and thus seem to be ambivalent with respect to contact to their mothers (Ainsworth et al., 1978).

Of the 11 infants classified as C by the Hokkaido group we would agree with this classification for 7 infants (although 3 of these do not fit the pattern perfectly). Two infants we would suggest to be classified as B, but who were overstressed, and 2 infants cannot be classified for reasons other than the procedural differences.

The 7 infants on which we agree were already anxious in episode 2 and 3, they were fussy, sought, much contact with the mother and played only very little. All of these infants cried in episode 4 or this episode had to be skipped. All except one of these infants showed angry resistant behavior after separation and 3 of them showed angry behavior even before separation. For all of these 5 infants at least one episode had to be greatly prolonged because of separation difficulties, usually episode 5, but sometimes already episode 3. None of these infants showed avoidance behavior in episode 5 except

for one who was given an avoidance score of 2.5.

The 3 infants who did not fit the C-pattern well, showed the following exceptions: One child was resistant in episode 3 and 5 but not in episode 8. One infant was made angry by her mother who constantly tried to take the child's security blanket away, and one infant did well until she hit her head in episode 5, after which she became petulant.

For 2 of the 11 infants classified as C we would like to suggest a classification of "overstressed B." These infants are not anxious in episode 2 or 3, although some seek contact in episode 3 and stay in contact for between 10 and 40 seconds. But according to the classification rules proximity and contact seeking in episode 3 can also be shown by infants of type B attachment. None of these infants showed angry or resisting behavior before separation, although one of them showed some angry behavior in episode 8. For none of these children any episode had to be skipped or prolonged. One of them showed some avoidance in episode 5. But these 2 infants cried for more than 3 minutes intensely before the mother returned again in episode 8. Thus these infants were greatly distressed throughout the second separation. They could not be comforted by the stranger and thus were at a high arousal level when the mother returned. In episode 8 one of these infants showed no resistance, the other only after more than 1 1/2 minutes had passed, and only in response to some very intrusive behavior by the mother, i. e. pushing a toy into the baby's face or after repeated unsuccessful put downs.

Because of the B-type behavior patterns of these 2 infants, i. e. very little anxiety in the pre-separation episodes, being able to play in episodes 3, 4 and 5, showing very little resistance before separation although some in episode 8, being able to go through the strange situation in a fairly normal manner, except in episode 6 and 7, and because of some avoidance of one of the children in episode 5, we would suggest to call these infants securely attached, but overstressed by the long separation.

Among the 11 infants classified as C there are 2 infants that we would not classify at all. They show such unusual behavior patterns throughout or in some parts of the strange situation that they do not fit either the traditional C classification, nor the overstressed B judgement. They show behaviors that can either be termed strange, even pathological, or these infants show no clear organization of their attachment behavioral system. The infants are described in more detail below.

One baby girl treats her mother in episode 2 as if she were a stranger. She looks at her warily at first but with increasing interest. After one and a half minute she starts to smile at her mother but her look has still a very sceptical, withdrawn element in it. When the stranger enters the child observes her and as soon as the stranger sits down the baby crawls directly to the stranger, contacts her, rises at the stranger's knees, smiles at her and invites interaction with the stranger. The child is in close contact with the stranger for almost 1 1/2 minutes, happily interacting with her. During this time the child looks every once in a while to the mother but then her face has an unrelated expression. Finally the infant goes over to the mother's chair but does not touch the mother. Now the infant shows many gestures and faces of being in conflict between mother and stranger. As soon as the stranger lures the infant to the toys, the infant complies and again makes contact with the stranger. But in episode 4, when the infant realizes that the mother has gone she gets nervous and resists the stranger's pickup. The child does not play any more

and starts to cry after one minute. The stranger cannot comfort the child.

In episode 5 the infant shows quite strong avoidance of mother and is fairly unresponsive to the mother's efforts to establish contact throughout. But when, after 3 and a half minutes, the mother says goodbye to the infant while squatting down beside her, the infant suddenly turns to the mother and holds on to her tightly. An intense struggle between mother and child follows in which the infant resists mother's leave taking and the mother tries to escape. After one minute the stranger comes and tries to take the child out of the mother's arms but the child struggles only stronger to keep contact with mother and resists the stranger. The separation in episodes 6 and 7 is not done because the infant is fighting intensely to stay with her mother. During the last three minutes when mother and child are alone again the infant calms down and starts to play but keeps contact with her mother.

In our judgement this baby cannot be classified because in episode 3 she showed attachment behavior to the stranger, she showed much avoidance of her mother in episode 5 but then changed to a typical C type behavior after the mother tried to go out in episode 5. The rest of the strange situation could not be done because the infant fought successfully for keeping in contact with the mother. The only appropriate classification would be A2-C1, or no classification at all.

The other infant showed a different non-classifiable pattern. This infant exhibited some anxiety in episode 2 and sought contact for 40 seconds. In episode 3 the infant crawled slowly to the mother, squatted before her and looked for a long time at the floor as if unable to decide to make contact with her mother. There appeared to be an approach-avoidance conflict in this behavior. Finally the infant made contact with the mother and stayed in contact with her, but also complied when the mother put her in front of the toys.

In episode 4 the infant did not cry, was a little hesitant towards the stranger at first but then settled down to play very well with her. But the infant seemed to miss the mother because she often looked around while continuing to play. In episode 5 which lasts 5 minutes and 14 seconds, clear-cut but less persistent avoidance behavior is seen. After some hesitation the infant sought proximity, but explicitly hesitated to touch the mother and stayed close without contact to her. When the mother finally carried her to the toys the infant accepted. After one and a half minutes the infant turned to the mother and started a long stop-and-go approach leading eventually to contact, but the mother put her back to the toys immediately. After this point the infant showed strong contact maintaining behavior. Thus after fairly strong avoidance in the first two minutes of episode 5, the infant suddenly appeared to have changed her mind and showed persistent attachment behaviors. The mother sneaked out after about 5 minutes.

Throughout episodes 6 and 7 the infant cried intensely for 4 minutes and 25 seconds. At reunion in episode 8 the infant stared motionless at her, then turned around, ran away from mother but returned to her after having made a big circle, and finally ran into the arms of her mother. After some comforting on the mother's arms the infant became irritable again, squirmed down and the mother let her go. The infant again ran away from the mother while at the same time crying intensely. The child stumbled and fell down while crying. Her mother squatted down, talked to her infant and invited her

to come. The infant came hesitatingly to the mother. The last part of this crawling was sideways but then the infant made contact with the mother, she picked her up and succeeded in comforting. During the rest of episode 8 the infant showed a very strong mixture of contact maintaining and contact resistance.

This infant also could not be classified because of the mixture of avoidance and proximity seeking in episodes 5 and 8 and the general impression that the child has conflicts when approaching her mother. Although the girl appeared to want contact with the mother, she also hesitated and avoided her. This kind of behavior that is not indicative of either the C strategy or the A strategy has been termed "disorganized" by Mary Main (Main & Solomon, 1986). This child could not keep up her strategy of avoidance, i. e. no crying in episode 4 and strong avoidance in the beginning of episode 5, but was very distressed in episodes 6 and 7 and turned towards the C pattern in the latter part of episode 5. Under high stress in episode 8 the conspicuous mixture of avoidance and contact seeking became prominent. This child would have either to be classified again as A2-C1, or be termed non-classifiable.

Unusual behavior patterns of some infants classified as " B "

Five additional tapes of infants classified as B by the Hokkaido group were selected randomly and were also reviewed. To our surprise we found strong elements of disorganization in three of the five infants. We agree with the basic classification of B in all cases. Of the infants we would call disorganized two children showed strong approach-avoidance conflicts in episodes 5 and 8. Within their full approach in episode 5 the children showed much hesitation and conflict behavior although proximity seeking clearly dominated. But then, in episode 8, avoidance dominated. The behavior pattern of an infant who shows continuously decreasing approach behaviors and at the same time increasing avoidance towards the end has not been described by Ainsworth and thus no classification is presently available for these two children. The third infant showed many odd behaviors during the session.

One child among the infants classified as C would also have to be called disorganized in addition to his C classification. This child cried surprisingly in episode 1 when the introducing person went out of the door and followed the person to the door. In episode 2 this little boy screamed at the door for 40 seconds, and only then slowly turned to the mother and crawled to her. During the entire episodes 2 and 3 the mother showed no reactions, neither to the crying nor to the approach of her infant. Instead, she pretended to read the magazine. At the mother's knees, the infant signaled to be picked up but the mother ignored him. He became very angry and petulant at his mother.

In episode 3 the little boy was quite wary of the stranger and again wanted to be picked up by the mother but the mother continued to ignore her child. The child got so angry that he hit the mother in order to get her attention but even this was not successful. The stranger tried hard to lure the child to the toys and after 4 minutes finally was successful. In episode 4 it took the infant half a minute to realize that the mother was gone, then he cried for a while but the stranger could distract him toward playing.

Episode 5 was again marked by strong bids for contact and the mother's resistance to them. She constantly tried to get him away from her and interested in toys, but he

always managed to keep some contact with her. When the mother ended the contact abruptly and went to her slippers the infant swiftly crawled to her and threw himself down in front of mother's feet, though not making contact. Again the mother showed resistance, pushed the child a little bit away, but finally could not help but pick him up. The child was again very angry, totally dispaired and mixed contact maintaing with contact resistance. Only after 6 minutes the child became slightly calmer, turned to the toys, and the mother took the opportunity and rushed out of the room. During episode 6, which lasted for 55 seconds, the little boy was totally distressed and cried intensely at the door. When the stranger entered he tried to get out of the room, but was not successful. He had a number of temper tantrums with the stranger and repeatedly tried to get to the door. He cried so intensely that he even choked. Episode 7 lasted for 2 minutes.

As expected, the mother had a hard time to comfort the child in episode 8. Since the mother now accepted her boy's crying for contact, he showed very strong contact maintaining behavior, clinging to the mother's neck and calmed down very slowly but had crying spells throughout the rest of the session. During episode 8 contact resistance was fairly low, but indications of distress were obvious up to the very end.

This infant is difficult to classify because much of the contact resistance is actually anger against his resisting or ignoring mother, especially in episode 3 when he actually hit the mother to get her attention. Nevertheless, is there much anger and thus the child should get a "forced" classification of C1, but the distress shown when the introducing person left does not fit any pattern.

Conclusions about the Hokkaido infant's behavior patterns

For this preliminary review of 15 of the infants, especially those classified as "C" by the Hokkaido group, we would currently like to draw the following conclusions: The above qualitative descriptions illustrate our way to review of all Hokkaido strange situation video tapes. Before this work in completed, we cannot comment on any statements suggesting that the strange situation is too stressful for Japanese babies. After all, a high proportion of the Japanese infants was well able to tolerate the strange situation so that they were classified as securely attached by more than one Japanese coder.

On the other hand the porportion of infants classified as C and thus being seen as insecurely attached, very angry or very distressed by the procedure ranges between 10% and 30%. In international comparison (IJzendoorn & Kroonenberg, 1988), a proportion of 10% to 20% of infants classified as insecurely ambivalently attached has been found in each country. In our North German sample we have 12% C attachment to mother although in our South German sample it was only 6%.

Already in 1977, when Mary Main scored and classified our Bielefeld sample (Grossmann, Grossmann, Huber & Wartner, 1981), she found that some infants were not classifiable within the existing system. Some infants showed strategies of two attachment classes, other children even of all three attachment classes. Each researcher should take the liberty to find these inconsistencies and not feel obliged to force a classification. Of course much information can be gained from knowing all the elements that consitute the attachment pattern of any given infant. This liberty of not assigning any one attachment class to a child who shows more than one strategy is important particularly for cross-

cultural research, as well as for classifying unusual samples such as maltreated infants, infants with frequent separations and so on. The existing attachment classification system has to be seen in its proper historical perspective. It evolved out of the home observations of Mary Ainsworth, and then was found to be applicable to a wide range of infants from various cultural backgrounds. Still, only a careful analysis of what infants actually do will reveal similarities and differences in their strategies to handle their aroused attachment system. We are convinced that such careful descriptions will reveal more about culture specificity than simple comparisons of frequencies of attachment classifications in different cultures.

Preliminary evaluation

Two obvious conclusions come to our mind: 1. a very thorough behavioral description of all the existing strange situation videotapes from cohorts 1 and 2 from Hokkaido; 2. a very careful ethologically minded (Grossmann, 1986) program of conducting strange situations in Japan. In the existing tapes, only a few infants indicate stress at the beginning and explore the room and the toys. Most infants move away from the mother to play. A high quality of play behavior indicated a low level of anxiety and stress. Most infants show clear proximity seeking and contact maintaining responses after separation, indicating a signal system appropriate for the strange situation. Helplessness occurred not more frequently than in our German sample. Some of the infants classified as "C" fit well the pattern originally described by Ainsworth et al. (1978). Others do not fit the C pattern well as partially captured by K. Takahashi's category of "pseudo-C." "True-C" behavior contains elements of anger, ambivalence, often distress throughout the procedure. "Later-" behavior could be defined in terms of reactions or secondary distress after a very long separation. It may well be expected that "later-C" behavior would hardly occur at all if the conduct of the procedure was geared to the infant's emotional status. In this case even more securely attached dyads would be found in Japan, contradicting the assumption that the strange situation per se is too stressful to Japanese infants.

To a certain degree infant temperament and maternal sensitivity will be confounded (Grossmann, Grossmann, Spangler, Suess & Unzner, 1985; Miyake, Chen & Campos, 1985). One has perhaps to look for situations more suitable for eliciting temperamental differences as compared to the strange situation that was devised to elicit attachment behavior. The above qualitative analysis, conducted by the second author, suggests that "C" patterns in Japan are, in many cases, not directly comparable to those described in the literature, and that some of these differences may be due to qualitative differences in conducting the strange situation in Japan as compared to those conducted by the attachment group in the U. S. and by us in West Germany.

A complete reviewing of the Japanese tapes will be done by our research group. Only then will we be able to say something more general about the observed Hokkaido infants' emotional-behavioral organization structure and behavior strategy in the strange situation. The results of the behavioral analysis of the 8-month home visit will then be related to these emotional-behavioral organization of the infants at 12 months in the strange situation.

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