

NOTE: In January 1988, Mary Ainsworth, Mary Main, Inge Bretherton, Klaus & Karin Grossmann, Alan Sroufe, Brian Vaughn, and Everett Waters met in Stony Brook for three snowy days of attachment discussions. In advance of the meeting each participant prepared a position paper on a particular topic. This was Mary Ainsworth's contribution. It is quite informative as to the origins of the security concept and Mary's contribution to attachment theory. It is of more than theoretical interest even today.

# ON SECURITY

Mary Ainsworth

## Definition

The definition of "security" has not been given as much attention as has the definition of conditions that make for security or the consequences of having or lacking security. It was drawn forcibly to my attention when drafting my dissertation in 1939 that the word is derived from the Latin "sine cura," i.e. "without care." Or, if you like, "without anxiety," "without fear," "without worry," or, indeed, "free from insecurity." And I think that this is a very good basic definition.

This implies that security is a feeling. If you read Chapter 7 of Bowlby's Vol. 1, entitled "Appraising and selecting: Feeling and emotion" it is easy to feel comfortable about defining security as a feeling--an "all is well" kind of appraisal of sensory input, "an OK, go ahead" feeling. And if you read his "Making and breaking of affectional bonds" you will find the following:

"Many of the most intense emotions arise during the formation, the maintenance, the disruption, and the renewal of attachment relationships. The formation of a bond is described as falling in love, maintaining a bond as loving someone, and losing a partner as grieving over someone. Similarly, threat of loss arouses anxiety, and actual loss gives rise to sorrow; whilst each of these situations is likely to arouse anger. The unchallenged maintenance of a bond is experienced as a source of security, and the renewal of a bond as a source of joy."

Thus Bowlby conceives of security as a feeling that can be experienced in the context of attachment, but surely he would not limit the applicability of the feeling to that context any more than he would limit the emotions of anger and fear and joy to attachment-related situations.

William Blatz's "security theory" aroused my interest while I was an undergraduate and eventually formed the basis of my Ph.D. dissertation research. He usually spoke of security as willingness to accept the consequences of one's own behavior or being able to rely upon someone else to accept them on one's behalf. However, he too thought of security as a feeling, for he contrasted feeling secure with being safe. By the time I published my dissertation, we agreed on the following:

"Two sets of circumstances are necessary for the experience of security. The individual is secure(1) if the situation is sufficiently familiar that, he, whether by reason of unlearned or learned patterns of behavior, is confident of his ability to deal with the situation as he understands it, or if he feels assured that he can depend on some other factor or person to do so for him, and (2) where he is confident that whatever the consequences of his activity he can either meet them adequately or feels assured that some other factor or person will prevent him from suffering unacceptable consequences.

Thus Blatz seemed to equate feeling secure with feeling competent or effective, even though one's feeling of efficacy rested with reliance on something or someone other than oneself.

I was always uneasy about Blatz's insistence on "consequences" as inapplicable to the infant or very young child. privately, I was more comfortable with the thought that an infant or very young child felt secure when his needs were met, and when he confidently expected that they would be met--a definition consistent with drive theory, to which I implicitly adhered until I became immersed in attachment theory.

If we define security as a feeling that the maintenance of the bond to an attachment figure is not threatened--and that all is well on that score--the term "felt security" contains a redundancy. The "felt" is unnecessary. On the other hand, defensive processes then present a problem. Defensive processes operate to reduce the anxiety aroused by a situation which one cannot otherwise control, in much the same way that an analgesic drug operates to reduce the pain of a toothache. But the defensive process does not really cope with the anxiety-producing situation any more than the analgesic cures the condition producing the toothache. The defensive process of cognitive disconnection (c.f. repression) temporarily gets rid of the anxiety, but one cannot say that it brings security. "Detachment," which is cognitive disconnection that has become habitual or consolidated, is more persistent but it is brittle, and even those who use the term "felt security" would not wish to call the detached person secure.

### **Assessing Security vs. Insecurity**

When we classify an infant as secure on the basis of his strange-situation behavior we do not mean to imply that he is always secure--for he tends to feel more or less insecure when his mother is absent, and may even feel threatened by her impending departure before she leaves. But he regains his feeling of security fairly quickly when she returns. And at home he is unlikely to feel insecure when his mother leaves the room under ordinary conditions. Even if she is away longer than he had anticipated or if he simply wishes her company, he is likely to search her out cheerfully if he can, or call for her, and does not often resort to crying. We identify a baby as anxiously attached on the basis of his avoidant behavior in the strange situation, but he does not seem anxious in the strange situation--not as anxious as either the anxious-ambivalent baby, or even the baby who is securely attached. But at home he surely appears anxious in his attachment to his mother in the first year. Thus it does seem that the criterion for judging a baby as secure vs. insecure rests upon the balance between behavior suggesting security and the behavior suggesting anxiety at home, and that the strange-situation criteria rest upon an inference from behavior there and home behavior.

Since security-insecurity seems to be the crucial dimension to assess, there are a number of researchers who have attempted scales to assess this dimension, presumably from very secure to very insecure. Scales that attempt to make this assessment on the basis of strange-situation behavior run into problems unless they take into account patterns of behavior, i.e. S/S classificatory patterns and even sub-patterns. Main and her associates have offered a four-point scale, which is useful if parametric statistics are to be used. This scale is essentially based on S/S classifications: Very secure (B3); Moderate or Borderline security (B1, B2, B4); Insecure (A and C), and Very Insecure (D). Main and Cassidy offered a 7-point security scale as part of their sixth-year reunion assessment, with behavioral definitions in the secure half of the scale (which were indeed helpful) but falling back, essentially, on subgroup classifications to define the points in the insecure half of the scale. Recently Mark Cummings has offered a 4-point scale of "felt security" which is based on judgments of "ameliorative," avoidant, and resistant behaviors, as well as difficulty in being soothed--not referring to classificatory patterns directly, but obviously based on these.

I myself am unenthusiastic about future efforts to fine-tune a security-insecurity scale. I believe that such efforts could better be directed toward fine-tuning pattern discrimination, for pattern discrimination was the breakthrough in attachment assessment. Quantitative assessments have to date been of less use (and validity) than qualitative assessments. The obvious first impulse was to try to assess strength of attachment, but this ran up against a brick wall when one realized that this could not be achieved by the mere assessment of the strength or intensity of attachment behavior, for this is situational, and furthermore it is those who are anxiously attached who tend to have the strongest attachment behavior in the natural environment, whereas those with the weakest attachment behavior could probably be best described as non-attached.

The work I did in my longitudinal sample on maternal behavior during the first year of life links differing patterns of maternal behavior to sub-patterns (subgroups). Surely, it seems more useful in our present state of knowledge to attempt to distinguish subgroups and relate them in more detail to patterns of caregiving behavior experienced by the child than to elaborate a uni-dimensional measure of security-insecurity—and this seems to me to be

especially relevant to the current studies of special groups of infants and young children at risk. This, however, does not deny the usefulness of even a crude 4-point scale if parametric statistics are to be used.

Waters' Q-sort technique is something different again. It is intended as a substitute for or supplement to strange-situation assessment. Its criterion is based on judgments of experts in attachment research and theory who are familiar with and take into account findings from strange-situation studies, despite the fact that the Q-sort assessment is based on behavior in the natural environment. It has not as yet provided any basis for identification of different patterns of anxious attachment, but it is becoming established as a valid method of differentiating secure from insecure attachment. I will say no more, deferring to Everett to give more information.

### **Blatz' Security Theory**

When Everett asked me to discuss "security theory" as compared with attachment theory, I took it that he wanted me to say something about Blatz's theory, which guided my earliest work. I first encountered this theory in a fourth-year undergraduate course given by Blatz under the rubric of abnormal psychology, and it was the formulation given there that inspired me and shaped my ideas about security. He did not replicate what he said in this course in any of his publications, which were few. "Parents and the Pre-school Child" preceded his formulation of security theory, and was concerned essentially with parent education. In his last book "Human Security" he said relatively little of what had first captured my interest. He talked about security a lot--in his conversations with students, and with his nursery-school staff. His was largely an oral tradition—and thus there was plenty of scope for one listener to focus on one aspect and other listeners to focus on others. What I can tell you about his security theory is what came through to me as most important.

But before I do so I should say that he had both a medical degree and a later Ph.D. degree in psychology, and that he had a private practice to help parents who were anxious about their children, directed an Institute of Child Study which engaged in longitudinal research (collecting data in a nursery school and grade school associated with it), served as Professor of Psychology in the relevant department at the University of Toronto, and generally was the Dr. Spock of Canada. He was also a founding member of SRCD.

I eventually concluded that he was basically influenced by Freud and psychoanalytic theory--although he never publicly implied this, and indeed differed very much with Freud on certain points. He had a kind of drive-theory of his own, specifying a limited list of "appetites" as the main-springs of motivation, which included hunger, thirst, elimination, sex (although he didn't believe in infantile sexuality), and change. I was especially captured by "change," his notion specified that infants and young children were intrinsically interested in changes in their own activity and in changes that take place in the world around them for their own sake and not as a derivation from some other motive.

His differences with Freud chiefly centered on the issue of the unconscious. He thought it was logically ridiculous to talk about unconscious thoughts or wishes--these had to be conscious. Although he did accept the notion of defensive processes, he had great difficulty with them, for he just could not think of unconscious processes as being important. (Information processing theory has helped us out!)

Much of what he said implied that security was a feeling, for he distinguished between safety objectively defined as being free from harm or danger and security as a subjective feeling of being safe whether one was or was not. Security could rest on a combination of several bases: immature dependence, independence, mature dependence, and to some extent on defensive maneuvers that he called "deputy agents" that I will discuss later.

The infant and to a decreasing extent the young child could achieve security only through depending on others (specifically parent figures) to take care of them, to fulfill their survival needs, and to take responsibility for the consequences of their behavior--and it was the latter upon which he placed most emphasis. The appetite of change led the child to be curious about the world around him, however, and explore it in order to learn about it. But learning itself involves insecurity. His notion was that if and when the child got himself into some kind of frightening situation--perhaps only "over his depth"--he had to feel free to retreat to a parent figure for comfort and reassurance in order to give him security enough to be able to venture forth again to brave the insecurities of exploring and learning. I cannot remember whether Blatz used the term "secure base from which to explore the world" or

whether this is my own phrasing. If a child could rely on parents to provide this kind of base he was secure, and to the extent that he could not solely he was insecure. Obviously, this kind of dependent basis for security was characteristic only of the earliest phase of life, and both impossible and inappropriate as a continuing sole basis of security.

However, as the child found out about the world in the course of exploration from his secure base he gradually gained knowledge about it and skills to cope with it. This body of knowledge and skills gradually formed an independent basis for security. The child to an increasing extent could rely upon himself, and therefore increasingly less upon his parents. Indeed by the time the child reached maturity Blatz seemed to assume that he should be emancipated from his parents and not depend on them any more, and that any substantial continuation of "immature dependent security" was thus undesirable. He did not apparently conceive of one being able to continue a healthy relationship with parents except through having become independent of them.

He acknowledged, however, that at least at this time and in this complex society, one cannot be secure solely on the basis of independence. He conceived of "mature dependent security" in which the person depends on one or a few others to supplement whatever independent security he has managed to achieve. He thought of this as occurring in a reciprocal give-and-take relationship, in which each partner on the basis of his/her knowledge and skills can provide security to the partner, and yet on the basis of the partner's knowledge and skills he/she can provide security in return. Thus, a relationship of mature dependent security is contingent upon each partner having achieved a modicum of independent security. Of course, the prototype of a good relationship of this kind was a good marital relationship--which as an undergraduate impressed me very much, and indeed still does. Of course one is reminded of the "goal-corrected partnership" of Bowlby--but Blatz did not believe this to be possible in a relationship of child to parent at any age. Nor did he specify any processes other than gaining knowledge and skills as a basis for such a partnership.

I have already mentioned that Blatz's bottom line about security was rooted in the business of acceptance of consequences. The child who is immaturely dependently secure can depend on parents coping with the task of accepting the consequences of his behavior. To the extent that a person is independently secure he accepts the consequences of his own behavior. However, in a maturely dependent relationship, he can depend upon his partner to help accept the consequences of his behavior. If all of these are insufficient he has to rely on "deputy agents" to do so, and relies on defensive operations. And here I thought that he his theory was not very helpful. He could point to this or that kind of attitude as defensive--e.g. intolerance, or blaming others, but the specificities of his examples made it very difficult. Furthermore, since he could not accept the notion of "unconscious processes as playing any significant role, he defined security and insecurity as conscious feelings. This meant that to the extent that "compensations"(another term for defensive processes) relieved the person from feelings of insecurity the person then felt secure.

Although Blatz's theory implied the normative, it also implied individual differences. Obviously there were individual differences both in security-insecurity, but also in the balance among the bases upon which security rested--whether on independence, or upon immature or mature dependence--or on deputy agents.

When I say that Blatz's theory was an oral tradition, and that different people interpreted it in different ways, I can illustrate this by the difference in my interpretation and that of the staff of Blatz's nursery school staff. Whereas I focused on the need for a young child to feel he could rely on his parent figures (immature dependent security) to give him a secure base from which to explore and to learn, the nursery school staff focused on the desirability of fostering independent security as completely and as quickly as possible. Being warm and caring people they undoubtedly did provide some kind of secure base to children in the nursery school, but that was not what they were trying to do.

Although obviously dependent security, both immature and mature, implied interpersonal relationships--or "intimacies" as Blatz termed them--he conceived of security as also pertaining to areas of life other than relationships. Specifically, he mentioned the familial area (e.g. children and their parents), the extra-familial area (age peer friends), the vocational area(jobs and money), the avocational area (hobbies and interests, with boredom implying insecurity), philosophy of life (as close as an agnostic such as Blatz could come to religion), and the marital area (what the ethologists call sexual pair-bonds). Thus it is clear that Blatz's security theory is really quite different from Bowlby's attachment theory, even though I found some useful overlap.

### Assessment of Security-Insecurity According to Blatz

My dissertation research constituted the first effort to assess security, and was limited to assessments of security-insecurity in the familial and extra-familial areas. The subjects were young adults--116 third-year college students enrolled in a course in personality and for whom an autobiography was available. Scales were constructed for each of the two areas, consisting of self-report items administered as a group pencil-paper test. Anonymity was ensured for both the scales and the autobiographies by an elaborate system, so that the subjects were known to us and to their professor by identifying numbers. The scale items were presented in the form of statements descriptive of feelings and attitudes. The subjects were instructed to check only those statements that he felt to be applicable to him; they were not forced to specify "yes," "no," or "?" for each item.

Each test--i.e. the familial test and the extra-familial test--had two scales, one of which assessed security-insecurity, and which was divided into several sections. The items for each test were, however, presented in random order. The two scales of the familial test were security-insecurity and independence-dependence. The security-insecurity scale was divided into three sections: immature dependent security, independent security, and insecurity. The items of the former two had positive scale values and the items of the latter had negative scale values. Similarly the independence-dependence scale has positive scale values for the items indicative of independent attitudes and negative values for those indicative of dependent attitudes. One could arrive at a total security score for the familial area by adding all the positive items of the security scale including the independence items, and subtracting the negative items of the security scale including the dependence items.

The extra-familial test had two scales, one of them a tolerance-intolerance scale, intended to assess the extent to which a subject used "deputy agents" (defense mechanisms) to handle insecurity. The security-insecurity scale had four sections: immature dependent security, independent security, mature dependent security, and insecurity. The total security score was obtained by adding the positive values of the security scale including the positive tolerance items, and subtracting the negative, insecure items including the intolerance items.

I will not go into the methodology of scale construction, except to say that care was taken to ensure internal consistency in each scale, and to discard items that did not meet the criterion. The difficult part was the weighting of the various items, for there was pre-existing methodology for only forced-choice scales--and I felt strongly that forced choices introduced distortions. My methodology was severely criticized by some.

However, the validity of the total scale scores turned out not to matter, because it became apparent to me that the main strength of the method of assessment lay in the patterns of scores that emerged. Thus, for example, those whose scores were clearly secure in the familial area could be divided into those whose scores on the independence-dependence scale were either clearly independent or clearly dependent. There were twice as many who were secure and independent as there were secure and dependent. Nearly all those who were secure and independent in regard to the family were clearly both secure and tolerant in the extra-familial area. (In attachment terms, those who were securely attached to parents but who were also self-reliant tended to have secure relationships with age peers and were free of distortions of social attitudes associated with defensive processes.)

I selected the most extreme cases manifesting each of the most common patterns of scores as illustrations of the usefulness of the descriptions provided both by the patterning of the scores and the content of the items endorsed. For each of these I summarized the yield of the autobiography. I, for one, was enormously impressed by the congruence of the score patterning and the autobiographical material. (Perhaps you might wish me to refer to this "case material" when we meet.) However, at that point I could conceive of no way to analyze 116 autobiographies in order to demonstrate objectively the congruence of these with the test patterns, and had to be content with my own subjective impressions--which is scarcely acceptable validation.

After completing my dissertation I went on to construct two more self-report tests, one pertaining to the avocational area and the other to "philosophy of life," and for reasons that I do not recall did some revising of the familial and extra-familial tests. (I now prefer the unrevised versions.) But when I left Toronto and joined up with Bowlby's team at the Tavistock I become wholly enchanted with the notion of prospective researching the natural environment relying on direct observation of behavior beginning with infancy, rather than upon retrospective inferences from paper-pencil self-report tests on adults.

Furthermore, I felt dissatisfied with the validity of my scales because of their inadequate coping with the whole matter of defensive maneuvers, and their assumption that such processes yielded security commensurate with security stemming from intimate relations with others or resting on one's own competence. Years later when I was employed by a psychiatric hospital for diagnostic evaluations, I used my four security tests out of curiosity as part of my test battery. This exercise, never published, convinced me that they did not yield a valid picture in many cases. They did indeed highlight depression. Those emerging with highly insecure scores felt insecure and unhappy and readily said so. However, the following kinds of disorders were characterized by very few endorsements of items, and these tended to be only slightly secure in scale value or slightly insecure: anxiety states, paranoid conditions, and sociopathic personalities.

Meanwhile, others of Blatz's team in Toronto went on with security research, but I was unhappy that none made use of my tests, but rather went on to construct their own either for children or for infants--along lines that did not really fit with my interpretation of Blatz's security theory.

### **Individual Differences Emphasis in Attachment Theory and Research**

Perhaps some of you believe that it was I who introduced a consideration of individual differences into attachment research. Bowlby, however, always conceived of attachment theory as having a life-span, developmental perspective, and as helping to unravel not only some of the puzzles in a normative view of development but also, and probably more important, to increase our understanding of the roots from which pathological outcomes stemmed--which, of course, implies individual differences.

To be sure, I began my research in Uganda in 1955-6, before he had put his new theory into published form. It was not until 1958 that he published "The Nature of a Child's Tie to its Mother" and that indeed was normative in thrust. Meanwhile, my Ganda research emphasized both normative development and individual differences. I did handle individual differences by classification rather than quantitatively. I distinguished three groups: secure, insecure, and non-attached (or perhaps better, not-yet-attached.) The children placed in the secure group cried little in the presence of the mother, although they tended to cry when the mother left the room. The children identified as insecure cried a lot even when mother was present, and not just when she left the room. The children identified as non-attached showed no differential attachment behavior toward the mother. However, one of these was only four months old when the study came to an end, and the other four were still pretty young--seven or eight months old--and thus may simply have not yet become attached, perhaps because their mothers were all quite highly neglecting. Thus differential attachment behavior was the criterion for having become attached, and amount of crying in mother's presence the criterion for security vs. insecurity.

I had more trouble in assessing the conditions that differentiated among the classificatory groups. I devised several rating scales, but found only three of them to distinguish the groups: (1) Amount of care given the baby by them other, which was little more than the usual amount of time that the mother spent with the baby; (2) Mother's excellence as an informant, which I have come to view as an indirect indication of maternal sensitivity to signals; and (3) Mother's enjoyment of breast feeding--an indication of her pleasure in the baby. My measure of maternal warmth did not distinguish the groups, nor did the total amount of care by mother and secondary caregivers.

The Baltimore study was very much more intensive and systematic than the Ganda study, and this had at least one disadvantage. It took years to get the accounts of home visits transcribed from the tapes that had been dictated after the visits. And it took even longer to complete the coding of infant and maternal behavior at home. In comparison, it was relatively easy to get the dictated accounts of strange-situation behavior transcribed. Consequently the first data analysis completed was of strange-situation behavior. While my typists and coders were early on when he thought he could expound attachment theory in a single volume.

I know you are curious about this, so I will add that Bowlby acknowledges that I introduced the concept of the secure base into attachment theory, and he has made good use of it. But it obviously fits with his account of behavioral systems and their interaction. It also fits with his notion that "timely encouragement of the development of self-reliance" is an essential part of parental fostering of secure attachment especially beyond the first year.

In this connection it may be useful to point out that beginning in Vol. 2 Bowlby talks of anxious attachment rather than insecure attachment. He wanted to highlight the relevance of his theory to clinical thinking and applications, where much emphasis was placed on anxiety. In his account of fear, he distinguishes between alarm and anxiety, with the latter pertaining to the fear experienced when there is separation or threat of separation from an attachment figure. Bowlby has always emphasized definition of key terminology, and the desirability of those working within attachment theory to adhere to a common terminology. This is the reason that I shifted from speaking of "insecure attachment" to "anxious attachment."

Attachment researchers have perhaps swung too far toward an individual-difference emphasis and too far away from a normative developmental emphasis. Both are important, and now that we are moving speedily beyond infancy in our thinking and research we should give much more attention to developmental changes in the nature of attachment itself. To date Bob Marvin seems the only one to have done so, simultaneously investigating the cognitive changes that pave the way for changes in the nature of attachment, and also indeed toward the identification of new criteria for distinguishing secure from anxious attachments.

To be sure, Main and Cassidy, in the process of back-and-forthing between patterns of reunion behavior in the sixth year and strange-situation classification at age one, did formulate anew classification system for assessing quality of attachment in six-year-olds. But this tells us little about either the developmental changes or changes in life circumstances that require us to find new criteria for differentiating among patterns of attachment at different points in the life cycle. To be sure, Main points to representational models as becoming increasingly important, but there is surely much more to be done to increase our understanding of the way in which representational or working models develop and operate.

Nor should we ignore Sroufe's focus on the major developmental tasks facing individuals during a succession of phases of development. This emphasis has certainly led to valuable research into the correlates and consequences of secure vs. insecure infant attachment, but does not really tell us much about the developmental changes in attachments themselves. The latter is needed also in the context of a life-span approach.

Finally, longitudinal research makes it evident that there tends not only to be a strong thread of continuity in attachment quality, but also the inevitability of change in at least an important minority of cases. Increasingly, we are concerning ourselves with increasing our understanding of change, and with defining the conditions under which it takes place. Such research certainly highlights the importance of combining the developmental (i.e. normative) and individual differences approaches.