Mary D. Salter Ainsworth: Tribute and Portrait

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MARY AINSWORTH WAS A LIVELY, PHYSICALLY ROBUST WOMAN. She had a notable liking for parties, dancing, books, music, whiskey, tennis, bridge, crossword puzzles, basketball, board games, geography, and meteorology. On entrance to her home in Charlottesville, where she took up residence in 1973, a visitor would note immediately that (as in the case of her previous home in Baltimore) it was neat, pretty, and well-cared for, and was backed by a wide screened porch where she spent much time. Her house was filled with comfortable, silk-covered chairs and sofas, oriental carpets, and Herman Maril paintings, which she collected. The overflow of serious books and papers was confined to her study, which also contained a tall bookcase full of paper-back murder mysteries. Like John Bowlby, she believed that at least 6- to 8-week yearly holidays were a good thing, and she took seaside holidays of this duration. By the 1980's she began to complain that academics in general were gradually growing too invested in grant-getting and publications, as indicated by the ever diminishing number of dinner parties. In the years in which I knew her, she was well-groomed, well-dressed, and liked bright colors, and this is partially attributable to a long, personal psychoanalysis which I discuss below.

Born Mary Dinsmore Salter in 1913, she received her doctorate from the University of Toronto in 1939. John Bowlby by no means introduced her to the concept of individual differences in security: her professor, William Blatz, had already developed a "security" theory (Bretherton, 1992), and her doctoral dissertation was entitled "An Evaluation of Adjustment Based on the Concept of Security". Here she stated that "where family security is lacking, the individual is handicapped by the lack of a secure base from which to work (Salter, 1940, p. 45, italics added by Bretherton, 1992). After receiving her doctorate, Mary Salter served in the Canadian Women's Army Corps, obtaining the rank of Major, and once stayed up all night practicing sharp salutes and turns around the corners of her dormitory for her unexpected next day's lead-taking of a full military parade. After the war, and while employed as young faculty at Toronto, she worked with Klopfer on a revision of the Rorschach (Klopfer et al., 1954).

Mary Dinsmore Salter married Leonard Ainsworth in 1950, and worked with John Bowlby in London from 1950-1953 as a research associate. Here she was particularly impressed with her co-worker James Robertson, whose very natural manner of note-taking and remarkable observational skills (shaped through his training at Anna Freud's Hampstead Clinic) influenced her ever afterward. In 1954, she accompanied her husband to Uganda, where she took notes on infant-mother interaction in the home setting (Infancy in Uganda, 1967). Settling in Baltimore in 1955, she was employed as a clinician and diagnostican at Shephard Pratt hospital, and was then hired by The Johns Hopkins University as a lecturer, eventually becoming a professor in developmental psychology. While at Johns Hopkins, she undertook and completed her well-known short-term longitudinal "replication" study of infant-mother interaction, the "Baltimore" study, in conjunction with which she devised the strange situation observational technique. Articles describing the Baltimore study began emerging in the late 1960's, but her overview of this study was not published in book form for several years (Ainsworth et al, 1978). Marrying somewhat late in life, she did not have children, and during her years in Baltimore she was divorced.

Mary Ainsworth moved to the Department of Psychology at the University of Virginia, Charlottesville in 1973, and retired reluctantly as required at the age of 70. Shortly thereafter she decided to learn to

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I am grateful to Inge Bretherton, Jude Cassidy, Diana Diamond, Erik Hesse, Robert Marvin, and David Pederson for their assistance in reviewing and improving this manuscript. As always in such matters, any remaining errors are my own.
I begin with a description of her reports on *Infancy in Uganda* (1963, 1967), which far pre-dated our acquaintance, but then-before going on to her better-known Baltimore study-describe my memories of her descriptions of her long, radically enjoyed personal psychoanalysis. Roughly, I believe I met Mary Ainsworth just following the conclusion of her analysis, but it now seems likely to me that her analysis may have influenced the development of the new lines of thinking about both infants and mothers that accompanied the Baltimore study. Thus, this essay interweaves my direct memories of Mary Ainsworth, and aspects of her life which she had simply recounted, with an informal overview of her work. I begin, however, with my initial introduction to her as a graduate student.

Mary Ainsworth was my professor at the Johns Hopkins University, and a friend and mentor until her death in Charlottesville earlier this year at the age of 85. The portrait and series of reflections which follows have not been reviewed for accuracy, and indeed, somewhat deliberately, I have not turned to biographical sources to inform them. It is based on memories—my own of Mary Ainsworth, of course, but as well my memories of her memories.

Mary Ainsworth was born to a middle-class American family living in Glendale, Ohio, and was the eldest of three daughters of a successful businessman who moved his family to Toronto in 1918. To my knowledge, she experienced no early traumatic separations, no early loss, no family violence, and no physical or emotional abuse. Family shortcomings, while genuine, fell well within the range of the merely insensitive and in no way approached the traumatic. In this light, it is particularly interesting that it is precisely Mary Ainsworth who mapped out the less dramatic, quiet establishment of the three basic "organizations of attachment" which emerge among infants in ordinary families in response to repeated interactions with mothers who-not frightening in themselves—nonetheless vary in their sensitivity.

In this essay, I begin with my first memories of Mary Ainsworth which constitute, of course, my early acquaintance with her as teacher and mentor. Thereafter, I describe each of her three major studies, interspersed with thoughts concerning her personality and her life (because, short of film, there is no better way to familiarize the reader with her personality and thinking, I have elected to quote somewhat more extensively than usual from her own writing). Thus, for example,
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Mary Ainsworth believed that her narrative records of daily infant-mother interactions held the key to this solving this problem. On the other hand, many (including, initially, John Bowlby) believed that 12 month olds-especially those experiencing no major trauma-were by far too young to display complex behaviors analogous to defense.

Ainsworth's students served, of course, as teaching as well as research assistants, and I assisted in her undergraduate lecture course in developmental psychology. Here she required the students to read the following books: Piaget's *The Origins of Intelligence in Children* (1952), Freud's *Outline of Psychoanalysis* (1964/1940), and Bowlby's *Volume I, Attachment* (1969).
She was explicit in her belief that a student had to learn the material offered before writing otherwise seemingly creative, essays upon it, and she therefore asked essay questions which directly addressed how much the students remembered, as well as what they had thought about, the material. Consequently, called in to the Administration and asked how it was that she could have failed one-third of Hopkins' well-paying undergraduates in this particular course, she replied that this was something she would gladly do again if again one third of a class failed to show discriminable signs of having learned the details pertinent to any decent grasp of the material, as had just happened.

Of equal value to attachment, psychoanalysis, and cognitive psychology in Ainsworth's view was ethology (the study of animal behavior in natural settings) and evolutionary theory, and although to her regret she felt she did not have time to learn as much in these areas as she would like, she encouraged her students to take courses in these disciplines. Ainsworth was an admirer not only of Darwin but also Lorenz, Tinbergen, and Robert Hinde, whose 1966 volume concerning animal behaviour served as her guiding text.

Mary Ainsworth was an unusually sociable advisor, who regularly had her graduate students to her house for dinner parties, took us to lunch, took us to the Faculty Club for cocktails and came to our houses for dinner. She liked late evenings, and not infrequently played her recording of Nina Moustakis' "Lilacs of a Summer Night", rising and snapping her fingers in an attempt to persuade us to join her in Greek dancing. She was not, however, the right age to act our age, and did not attempt to do so. At the same time, although she was the right age to be our mother, as a mentor she was not especially motherly, being disinclined to be personally involving. She did discuss her personal life on occasion, but did not generally inquire regarding ours.

Mary Ainsworth served as a model of calm feminism. Never in my entire memory pushy, unpleasant or harsh with anyone, she had a self-confidence which forbade heavy interference. Two examples will provide illustrations. First, at one point, having surveyed a number of personnel files, she came to the unpleasant discovery that with no underlying rationale at all, she was being paid considerably less than were men at a similar academic level. Armed with a few columns of well worked-out figures, she went to the officials concerned and quietly amended her salary. As a second example, when she came to Johns Hopkins, women were not allowed into the Johns Hopkins Faculty Club. Without fanfare, she succeeded in integrating this facility simply by-wearing, as she later reported, her best suit and a rose corsage-sitting alone one day at a center table until she was, very eventually, waited on. After that, as she knew, the precedent had been set, and she began taking her many female graduate students to dinner there. In each of these endeavors, as in facing the many attacks on her scientific work suffered in the succeeding decade, she publicly maintained her ladylike, and perhaps slightly major-like (military) calm. In private she often got mad, impatient, distressed, and frustrated respecting these attacks, and did not enjoy them.

Mary Ainsworth had several characteristics as a mentor which are, at least in combination, extraordinary. First, she required rather than simply recommended independence on the part of her students, meaning that rather than utilizing her already-collected data for a thesis, each student had to design and carry out a complete project, bringing in their own research participants and drawing their own new conclusions. Second, she believed that a person's academic life was not the whole of their life, but only a portion. I remember her arguing strongly with several professors who were angry that a student at dissertation level—given all the time the faculty had invested in her—was leaving academia to get married and raise a family. Ainsworth argued that the faculty had no business objecting to a life decision as large as this one, and that on the whole love could at times reasonably be put before a Ph.D. Moreover, as to all the academic time that had been invested in her, horsefeathers, the student owed the faculty nothing and that was what the faculty was being paid for.

Third, she wrote our better ideas down in an endeavor not to become confused later and think that she herself had come up with them. Fourth, she worked very hard on helping us with our work, and in my case spent many late afternoons and early evenings on the pleasant screened porch surrounding her home in Baltimore, working out the multiple flaws in my doctoral thesis.
After a first two years of increasingly liking and admiring Mary Ainsworth and not at all regretting my forced move from adult linguistics to infant attachment, I entered a period of disliking my professor and upcoming profession, and the feeling was mutual. On her part, I heard that she said (unfortunately aptly, but I refused to consider the truth-value of the statement at the time) that she dreaded sending me out on home visits to Baltimore mothers, because I was virtually unable to engage in small-talk, and would probably ask them what they thought of Spinoza or something. In addition, she said I impressed her as considering myself to have been born with an academic silver spoon in my mouth, and she was tiring of my high self opinion. What I chiefly remember thinking myself was that attachment was boring, I wished I had gotten into psycholinguistics after all, Mary Ainsworth was boring, and the Ainsworth strange situation was very, very boring. From the nature of these complaints we can unfortunately also infer a considerable truth-value to her second statement.

During this period, which endured for about a year, it did not occur to me to take my complaints above her head, or indeed to take them to anyone important to her, and I now realize that I rested in the unquestioned belief that she would do the same and would defend, recommend and protect me if necessary. However, I did recount my complaints once to Roger Webb, a young faculty member whose sense of honor, I knew, would forbid his recounting them to others. After attempting to listen seriously, he smiled and said it was indeed a wonderful thing that I was in a period of post-adolescent adolescent rebellion, but while rebellions involving the previously imagined perfections of one's advisor were ultimately academically positive, he advised me to continue to keep my mouth shut and behave politely. I did as he suggested, and although there was a year's worth of some radiation of mutual "cooith" between Mary Ainsworth and myself, we also maintained our mutual civility.

Therefore, because no outburst of anger appeared on either side, and neither of us confronted the other, I am presently unable to remember any point of reconciliation or indeed any incident which marked the ending of the period. It faded, and had been gone for a year by the time Mary Ainsworth, at the party she gave to celebrate my leave-taking for Berkeley, jokingly presented me with what she said I had obviously been born with, a silver spoon.
order to study the gradual development of attachment she focused upon the age period of 2 to 14 months. The book which resulted from this work, *Infancy in Uganda* (1967), includes an ethnographic description of her setting near Kampala, and of mothering practices in Uganda, together with a series of case studies, each accompanied by excellent and highly informative photographs of mother and infant which Ainsworth (a superb photographer) had taken herself. Here, Ainsworth systematizes for the first time the many signs of the development of focused attachment (in almost all cases, first to the mother, but in one, first to the father), including differential smiling, differential crying, crying when the mother leaves, following, burying the face in the mother, clinging, lifting arms in greeting, clapping hands in greeting, and (perhaps of greatest theoretical importance) use of the mother as a secure base for exploration, and flight to the mother as a haven of safety.

In *Infancy in Uganda*, Ainsworth also presents her first lines of thinking regarding the origins of individual differences in the quality of the infant's relation to its mother (secure, insecure, or nonattached)-as identified sheerly through home observations together with their correlates. In *Infancy in Uganda*, children were termed secure in their attachment to their mothers if they cried little except on separation or if hurt or ill, and if when with their mothers they seemed especially content and were able to use her as a secure base for exploration (N = 17, this description accords as well with the home behavior of infants termed secure in the Baltimore study). Infants were termed insecure when they cried a great deal, even while held by their mothers, fuss and stayed close to their mothers, and seemed unable to use her as a secure base for exploration (N = 7). This description accords well with both the home and strange situation behavior of those who would be termed insecure-resistant/ambivalent in the strange situation procedure in the Baltimore study-but in parts fits as well to the home, but not the strange situation behavior of those found insecure-avoidant. Finally, five children were termed nonattached on the basis of an absence of differential displays of attachment behavior: among these, some might have been considered avoidant in the later terms used by the Baltimore study, some may have been what Main and Weston (1981) would later term unclassifi-

able, and some, still young, may have been as Ainsworth then considered them, non-attached.

To me, four aspects of this book are particularly striking. First, via case studies, the reader almost immediately recognizes the universal nature of infant-mother interaction, although Uganda provides a context in which dress, custom, and housing materials (often mud and wattle, with earthen floors) differ strongly from our own. Second, and relatedly, Ainsworth describes the infants and their mothers using no special research jargon, but rather ordinary speech (or writing), a habit which she had acquired via James Robertson (and indirectly, via Anna Freud) and which her assistants then utilized throughout her later studies. Third, when infants are judged insecure, mothers are placed in their immediate context, which often involves almost overwhelming social and economic pressures. Under some circumstances, Ainsworth implies, ideal or even "good enough" mothering practices may simply not be possible. Fourth, she observed secure infants eventually becoming, to her eyes, insecure, and observed the reverse as well, a possibility obvious enough to Bowlby (Robertson & Bowlby, 1952; Bowlby, 1969, 1973) but which, oddly, has frequently been considered much less likely by those outside of the field.

Extracts from her case studies (1963) serve to illustrate each of these first four points. I begin with Ainsworth's description of the secure infant called William, as follows:

William had a different pattern of rearing . . . his father . . . was posted so far away that he could get home only rarely. William was the youngest of 10 children, and there was also a foster child. The mother, single-handed, had reared all of these children, grown their food and prepared it, made many of their clothes, and looked after a large mud and wattle house which was tastefully decorated and graced by a flower garden. She was a relaxed, serene person, who could talk to us in an unhurried

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*For example, ten years later Bowlby (1973) stated that "the period during which attachment behavior is readily activated, namely from six months to about five years, is also the most sensitive in regard to the development of expectations of the availability of attachment figures . . . [Nevertheless] sensitivity in this regard persists during the decade after the fifth birthday, albeit in a steady diminishing degree as the years of childhood pass" (pp. 202-203)."
Let us now review Ainsworth's description of Muhamidi, whose attachment was insecure:

Muhamidi . . . had his mother almost exclusively to himself and became very attached to her, but his attachment was . . . insecure. Muhamidi's mother took him everywhere she went, and even worked in the garden with him slung on her back. She never left him with anyone else for more than a momentary absence. But she was an unhappy woman with serious worries . . . She had recently lost a four-year-old child, and her five-year-old [was seriously ill] . . . Later, it emerged that her relations with her husband were also very unhappy; he expected her not only to grow the food, but to help harvest his cash crop of coffee, and she had no help with her two completely helpless children. She seemed to feel that her world was falling apart.

By the time Muhamidi was seven months of age, [his mother] left her husband and went home to live with her own father, in a very complicated household with several young wives and innumerable children. Her own mother now lived elsewhere, and although she was sure of her father's affections, he was busy, his wives were jealous of her, and she felt there was no real place for her in this household. There were other people who could help her, but no one really did?

Finally, here is the description of "still more insecure" infant called Sulaimani, which offers evidence of Ainsworth's judgment that, should mother's setting change in a positive direction, an insecure infant could well become secure:

Even more insecure was Sulaimani . . . The childless first wife in this family was a big, overbearing woman. Sulaimani's mother

Z. As an aside I remark here that although her ability to set the Ganda mothers of insecure infants in context underscores her general attempt towards understanding the parent's own difficulties, she did not always do this, and in the moment could be impatient with parental insensitivity. Watching a videotape I showed her of one father who looked straight ahead in apparent disinterest as his terrified baby crawled under an empty chair to cry, for example, she asked no deep questions regarding the father's own troubles, but rather leaned forward towards the video monitor, and bellowed, "Do something, you big boob!"
contact with him, and treating him with apparent affection—does not relate to security, a negative finding which Ainsworth will check out again in the Baltimore study (where it will again be found unrelated to infant security, this time as assessed within the strange situation procedure). This is, unfortunately, perhaps the most obvious maternal quality looked for by almost any observer of infant-mother interaction. Consequently, it is likely that many researchers investigating the relation between "sensitivity" and infant security without using Ainsworth's Baltimore scales may find only a small relation precisely because they are in fact largely focusing upon maternal "warmth."4

Second, we find only very modest, small-sized relations between maternal and infant variables even where significant associations are uncovered, even when using a perceptive, clinically trained, non-blind observer. Besides underscoring the remarkable honesty of the observer, this again suggests that the variables associated with infant security are not obvious to most. However, perhaps in part as a function of her increasing interest in both cognitive psychology and both her personal and academic interests in psychoanalysis, the maternal variables associated with infant security will be worked out in conjunction with the Baltimore study. Here, individual differences in infant security will turn out to be closely related to absence of defensive processes in the mother, a knowledge of her own feelings and impulses, and an interest in infant mind. Finally, we see that the strongest correlate of the Ganda infant's security—notably, mother's excellence as an informant—anticipates the relation later found between infant strange situation response and the parent's response to the Adult Attachment Interview. Thus, excellence as an informant (regarding the infant) is described as involving sticking to the topic.

3Ainsworth frequently remarked in her publications that, while of course she need have no regrets in referring to mothers as "she", she regretted repeatedly referring to the generalized baby as "he", something which she did for the sake of the reader. Interestingly, in the final chapter of Infancy in Uganda (1967), where she is no longer concerned with case studies, she makes many references to "he", the baby's parent.

4In an overview of the many studies now comparing "maternal sensitivity"—as variously defined by differing investigators, using varying observational settings—to infant security of attachment as assessed within the strange situation, deWolff and van Uzendoorn (1997) have only a modest, albeit solid, overall relation, which increases substantially as the method used to identify maternal sensitivity more closely approaches Ainsworth's recently, Pederson and his colleagues, who have studied Ainsworth's original scales intensively, report a correlation closely approximating hers (Pederson, Gleason, Moran & Bento, 1998).
volunteering information, and giving much spontaneous detail (all forms of discourse coherence as Ruth Goldwyn and I later identified them, Main & Goldwyn, 1984-1999).

In the final chapter of her book regarding her much earlier work in Africa, Ainsworth (1967) found herself reflecting on the fact that, having now begun on her Baltimore study, she was beginning to believe that a mother did best within the earliest months of life to give her infant what he seemed to want. This, she believed, would give him confidence. On the other hand, she puzzled over the fact that, sooner or later the most sensitive mother would have to frustrate her infant's wishes, and regarding this problem she wrote (Ainsworth, 1967) as follows:

What about the question of control and omnipotence? This is a more difficult question and I cannot find a clear parallel with kittens or monkeys. But I fall back again on Ecclesiastes—there is a time for omnipotence and there is a time when omnipotence should be discouraged. I believe that a baby gains his first firm sense of reality—what the real world is about—through discovering that his own actions alter and control what happens . . . . Whether they intend to do so or not—and certainly few parents are conscious of trying to stimulate a baby's development when they attend to his simple and immediate needs—parents give a baby a sense of control and competence and a growing sense of reality when they respond to him, and this in turn facilitates his actual development of control, competence, and reality.

There is a point, however, toward the end of the first year of life or early in the second year, when a baby's confidence in being able to control his world through his own actions is well enough established that parents can begin to show him the limits of his power. Much of his assurance rests on his parents' cooperation. If . . . they had not gone along with him this far, he could not have built up any kind of trust in himself, in them, or in the world. It may be difficult to judge when the time has come to begin to demonstrate to an infant the limits of his power, but sooner or later—yet not too soon—he must learn that he is not king and cannot control his parents at his whim [pp. 448-449].

Bowlby's response to her 1963 report regarding individual differences in infant security indicated some doubts. Although Bowlby is replying to Peter Wolff, who is bringing up issues of the meaning of infant attachment behavior in differing cultures, Mary Ainsworth had spoken just previously.

Bowlby. You speak as if we know what the significance is for later development of this or that kind of attachment. I do not believe we know it at all.

Ainsworth. In my thinking the concept of attachment does carry implications of health and non-health.

Nonetheless, as he himself explains shortly, Bowlby is doing no more than urging caution, which Ainsworth herself urges for the whole attachment enterprise in the paragraph ending *Infancy in Uganda,* published four years later. Since the paragraph captures so much of her open manner of thinking through to the 1990's, I include it here as a whole:

It has always seemed to me that a scientist—especially a behavioral scientist—must have a great deal of tolerance of ambiguity and uncertainty if he is to keep his equilibrium in his vocation. It takes such a long time to find the clear and unambiguous answers that one can be sure that in one's lifetime most of the questions will remain unanswered. It is difficult to hold an open mind over an extended time—and yet, that is what is required of the scientist. It is required also, increasingly, of the ordinary citizen in this age. Science has been so successful that we have arrogant expectations of it; and yet the practical answers, especially, are slow to come. In matters such as rearing an infant—a matter which is of immediate and urgent concern to parents—it would indeed be good if all the answers were known. They are not—and therefore parents also, and perhaps especially, must have tolerance of uncertainty and be content to do the best they can with the information they have available to them. And despite the alarming incidence of neurosis in this world, full as it is of uncertain or conflicting information, parents—both Ganda and non-Ganda—by and large do well [Ainsworth, 1967, pp. 457-458].
Mary Ainsworth and Psychoanalysis

Mary Ainsworth had several romances in her youth, and, twice photographed in her late twenties or early thirties by Karsh she appears slender and pretty, with a happy, high-spirited, self-confident and even slightly flirtatious look. However, she did not marry until her late thirties and perhaps for this reason her marriage failed to produce children, which was one of the great sorrows of her life.

Some time between the Ganda study (1954-1955), in which Mary D. Salter Ainsworth accompanied Leonard Ainsworth to Uganda, and the beginning of data collection for her "Baltimore replication study", Mary Ainsworth's marriage either failed, or was noted by her to have already done so. Since I never met her husband, I will have little to say about him here, except that her most succinct overview of her marital troubles was often snappily put as, "Perhaps I could just say that I was the first of four wives". This suggests serial polygamy, and earlier experiences involving something approaching simultaneous polygamy cannot be ruled out. Indeed, to his alarm as a very correct British gentleman, I remember John Bowlby reporting that he had once inadvertently "spent the night alone with Mary Ainsworth" (!). This had happened because, while he was invited to stay with both members of the couple, to John's dismay, distress, and great embarrassment for his friend Mary, her husband inexplicably disappeared at dinner and remained disappeared for the remainder of the night.

As I understand it, it was the tremendous unhappiness accompanying the ending of her marriage which brought Mary Ainsworth into psychoanalysis, which then represented one of the greatest periods of happiness in her life. I do not know when her tolerance or admiration for psychoanalysis developed, but Bretherton (1992) notes that her graduate school had been highly intolerant of psychoanalysis. The person specifically recommending her to psychoanalysis was her friend Joe Lichtenberg, and for this he is owed much gratitude from the field. In discussing parts of her analysis here, I am breaking no personal confidences: She was generally happy to discuss it, and included instructive aspects of her experiences in undergraduate lectures. .

To avoid lightening the nature of the events which brought her into psychoanalysis, however bright the analysis itself soon became for her, I will say, as Ainsworth was glad to say to any troubled student, that she was experiencing a serious depression with its accompanying emotions and thoughts. I never knew the name of her analyst, but I have great admiration, as did she, for his first act. After listening to her blame herself for her marital troubles, which she would soon cease to do (with his assistance, she would begin to grow angry instead), he gave her astonishingly direct advice. To be precise, he said something very close to the following:

"Your dress is too dark and too long. Your hair is too severe, and overall you look like a woman in her seventies. You aren't. I will be happy to take you on for an analysis, but before the next session, I want you to be sure to do two things. First, get some new clothes, the right length, and for God's sake, something with some color. And secondly, do something about your hair."

I have seen post-marriage but pre-analytic photographs of Mary Ainsworth, and she is dressed as severely and darkly as her analyst said, with her hair drawn tightly up and back in either a chignon or a French twist. With great pleasure, in the days following her first analytic session, she shopped, bought clothes in bright new colors, and, of course, also did something about her hair. Her analyst's first remark on seeing her in her new, bright, younger feminine aspect was also a life-long source of delight-

"Much better!"

Thereafter he no doubt fell silent as they began on the analysis itself.

Mary Ainsworth had many important dreams during her several years of psychoanalysis, some repeating across the course of the analysis and then solved with new endings as the analysis proceeded. One of her favorites, however, involved herself, another relative, and a grandmother (all in reality named Mary), and a voice calling out, "which Mary?". In analysis it was brought to her attention that this could also be heard as having been "witch Mary", an idea which also had some meaning for her, and she used this dream to illustrate the principles of condensation and over-determination to her students.
Mary Ainsworth described herself as having a second "instantaneous" response to analysis, and one which always fascinated her. From the first weeks of analysis forward, she felt energized in her work, and began working daily (and into the night) with tremendous enthusiasm, leaving whatever troubles might otherwise have impeded her work to her daily hour with her analyst.

It is amusing, of course, to contemplate that this response to analysis fully illustrated her own original concept of the sensitive attachment figure's ability to act as a "secure base" for exploration and play. To many of her students—and especially Everett Waters, who has continued in Ainsworth's tradition of home observations—Ainsworth's secure base concept still forms the highly original center of her work (see Waters et al., 1995). With respect to infancy, Ainsworth emphasized that a secure infant typically moves out from the parent to explore and play within the immediate environment, then returns to its "secure base" (often showing or emotionally sharing the results of its explorations), then moves out again, and then returns—a characteristic which is seen in happy adult relationships as well, in which the day is discussed, and its pleasures and unpleasures revealed to the partner, before a new day and a new temporary leave-taking takes places. It is evident enough here that Mary Ainsworth had the capacity to fully enjoy her days and nights of work immediately upon finding a daily source of security with whom to discuss it. With respect to infant secure base behavior in particular, she had already written that:

The behavior pattern to which I have referred as "using the mother as a secure base" highlights the fact that there can be a sound development of close attachment at the same time that there is increasing competence and independence. It is the insecure child who clings to his mother and refuses to leave her. The secure child, equally closely attached, moves away and shows his attachment by the fact that he wants to keep track of his mother's whereabouts, wants to return to her from time to time, and in his occasional glances back to her, or in his bringing things to show her, he displays his desire to share with her his delight in exploring the wonders of the world. So in reply to one question from parents I reply that attachment does not normally or necessarily interfere with the development of competence and self-reliance but rather supports this development [Ainsworth, 1967, pp. 447-448].

When Mary left psychoanalysis on her own (her analyst agreed to this, although she thought that he thought she could have used a final year), it was because she felt that her own troubles were no longer of as much interest to her as they had been, and while her own happiness was still imperfect, she was now contented enough in her own life to begin spending the long weekly hours spent in psychoanalysis on her work, which she believed might someday effect the happiness of others.

As a function in part of her own experience of psychoanalysis—and no doubt of her own accompanying and perhaps previous readings—he had now become a friend to and admirer of analytic thinking, and much of this was focused upon the oedipus complex, especially since she believed that an unresolved oedipal complex had been at the root of her own troubles. Preferred by and preferring her father, she had at the age of three spontaneously learned to read—completely, flawlessly and accurately—by figuring out the patterning of the squiggles on the newspaper as she sat on his lap, squiggles which he occasionally read out to her mother. This suddenly emerging fully developed capacity for reading reflected her extraordinary abilities in pattern perception and shocked her parents (who had, again, made no effort whatsoever to teach her), and may have contributed to her life-long enjoyment of puzzle solving and intelligence tests, which she which invariably "aced" at the highest levels. At about the same time (while she was still age three), her father took her alone with him to St. Louis on a business trip, and 80 years later she still recalled the delight of that experience (as well as her first impressions of St. Louis). On return, she described herself as mistakenly trying out lording it over

5 In his final volume, entitled A Secure Base, and dedicated to Mary Ainsworth, John Bowlby expressed this phenomenon particularly aptly: "All of us, from cradle to grave, are happiest when life is organized as a series of excursions, long or short, from the secure base provided by our attachment figure(s)" (Bowlby, 1988, p. 62).

6 Mary Ainsworth said nothing to me regarding either her early reading abilities or her characteristic "acing" of intelligence tests until she had retired, and I would not be surprised if she had considered such stories inappropriate for graduate students.
her mother regarding what she saw as her father's clear and justified preference for herself, and a photograph of her at about age four has been described to me as that of a very pretty, self-confident, and almost overwhelmingly intelligent looking little girl.

At around this time, Mary Ainsworth's mother put her foot down regarding her "special" relationship with her father, and declared her, for example, too old for such childish expressions of affection as sitting on her father's lap (a maternal and uxorial order which was, unfortunately, followed). In the succeeding years and continuing well into her adulthood, her mother's jealousy and attempted interference in her life remained dominant in their relationship and in her memories, tempered by memories of her father's continuing quiet affection. Although analysis led her to acknowledge that her father was not as ideal as she had imagined, her memories of him seemed to remain a source of pleasure. However, Ainsworth remarked frequently upon her mother's jealousy, interference and attempted dominance, which had not ceased to irritate her (to my mind, somewhat excessively, as she sometimes felt herself) at least into her late seventies. Happily and remarkably, however, she had already long succeeded in being, in her own母性及导师角色, nothing like her own mother—that is, unlike many who long persist in describing a faulted parent, she did not resemble her. She was not jealous (or if she was, she kept it to herself), and certainly she was never interfering or dominating.

With respect to the most general level of theorizing, Mary Ainsworth's greatest admiration went-before and following her psychoanalysis-to John Bowlby, whose genius in setting attachment in the context of evolutionary theory and cognitive psychology had, she believed, changed the whole of our understanding of human psychology. However, I think she regretted that he and she, having each set out on their greatest work in late middle age (55-60), would have insufficient time to investigate other topics of great interest. In thinking through possible pathways with insufficient time now to be taken, she gave more weight to the likely import (in later childhood) of the unresolved oedipal complex than did Bowlby, and wished that other persons, informed (like Bowlby) by evolution and ethology as well as psychoanalysis, and willing to conduct long-term naturalistic studies (like herself), would subsequently systematize differences in the development of sexuality and aggression.

I should add here that Ainsworth did not see the systematic study of sexuality and competitiveness (or the study of any other major behavioral system, such as exploration and play, see Lichtenberg, this volume) as a branch of attachment theory, and as I remember, neither did John Bowlby. Of course, both eventually believed that the nature of our earliest attachments are likely to be heavily influential in later life, and will influence not only later relationships but also the development of other behavioral systems. However, neither as far I know regarded attachment theory as a theory which would or should take over either psychology or psychoanalysis. Sex, aggression and competitiveness—elements of human behavior which enter into the oedipal complex in the psychoanalytic perspective, but also, from an evolutionary perspective, into reproductive success—should, then, be systematically studied all over again, and in their own right. I add here, however, that in Ainsworth's view it was probably chiefly when early attachments are insecure that difficulties in the expression, as well as the appropriate control of, sex and aggression may become a problem.

Mary Ainsworth, Sex, and Aggression

As I have stated earlier, I only knew Mary Ainsworth following her analytic experience, so that characteristics I now at least in part attribute to and associate with a successful analysis may have been pre-existing characteristics as well. However, throughout the period that I knew her, with respect to sex and aggression she was in my view an exceptionally healthy and mature woman. With respect to aggression, Mary Ainsworth easily (privately) got angry, almost always expressed it either not at all or appropriately in public, and usually got over it. Over the course of a thirty-year friendship it is inevitable that we should have had some disagreements. These were not many, and we often simply managed by maintaining mutual civility until we had both forgotten about it. A few led to warm, if not heated discussions, in which she was never mean. Some ended with an agreement to disagree, and some with an apology on either side. At other times she spent several days in marshalling her arguments, called me up, and said "I have been continuing to think about this for several days now, and I would like you to listen closely, because I still think I am right".
At other times she phoned with the welcome opening sentence, "... I think I've been wrong!"

In keeping with her view that it is healthy to be able to be angry, but that it can often be best not to express it to a younger or dependent person, she never expressed annoyance with me directly until I had obtained my doctorate and moved to Berkeley. Thereafter, taking me along to the Cayman Islands with her on a holiday to provide a source of cheer following the death of my first husband, she found me a reluctant partner in board games, which she greatly enjoyed. Part of my thesis had concerned the baby's ability to exhibit a "game-like spirit" while playing with Inge Bretherton: at my refusal of a fourth game of Scrabble she turned about and stepped smartly out of the room, remarking loudly over her shoulder as a parting shot, "... and may I ask whatever happened to your... your Game-like Spirit!"

I was shocked-in fact, virtually dumbfounded-at this first direct expression of anger, since I had never imagined that my former advisor would elect to speak so extremely harshly to me. I was also left to reflect upon the fact that my board-game reluctance may have stemmed not solely from my own loftier interests but more basely from the fact that she almost inevitably beat me, badly. Later she confessed that one of the very few people up to her abilities and perhaps the only one capable of regularly beating her was another former student and thereafter life-long friend Bob Marvin (who together with Cheri Marvin were Mary Ainsworth's primary attachment figures in the last years of her life).

Over the years she and I had what we eventually had to take humorously as continuous tendencies to be (on her part, in my opinion) too readily angered, and (on my part, in her opinion) too unreadily angered, frequently defending others or taking positions on topics in a manner she considered naive. Knowing our opposing tendencies, she eventually came to introduce her current (and selfadmittedly sometimes petty) annoyances with humor. With this in mind, it is typical that she began a telephone call during the summer of 1998, as follows: "Okay, I have another "mad" on, but this time I think you aren't going to get all up in arms about it. I absolutely, positively, cannot STAND Kenneth Starr".

With respect to sex, Mary Ainsworth liked and enjoyed men, and appreciated male pulchritude. However, she was very far from having any interest in brief relationships for their own sake, and I believe that the romantically inclined friendships which followed upon her divorce, though real, were fewer than she would have liked. On her visits to the home of Erik Hesse and myself in Berkeley, she liked to play and replay a particular song: "Suddenly, Out of Left Field" sung by Percy Sledge in his beautiful, rich, southern voice:

When least expected, Fate stumbles in.
Brings light to the darkness, over again. I needed someone to call my own. Suddenly, out of left field, out of left field, Out of left field Love came along.

One day I walked in on her listening to it again, sitting up on the couch with her arms wrapped around her knees, looking wistful and dreamy in her pretty, multi-colored clothes. I had, she said, as I no doubt knew, caught her the middle of dreaming that perhaps someday suddenly, out of left field, and in the years that follow the age of 68, love might come again to her as well.

It did, but many years later. Ironically, and both sadly and happily, her final, favorite and most serious romance took place at the age of 81 when she was residing in the "assisted living" section of a Charlottesville retirement community, in which there also lived a distinguished retired professor of medicine. In their first meetings at her apartment, she described herself as having artfully set out various honors and articles across her cabinet tops and coffee table, since she felt that leaving out subtle indications that she, too, was a distinguished professor could do no harm. In contrast to this bit of feminine wiles, her over-riding sense of honor demanded that she treat their Scrabble games honorably-and hence, inevitably, she beat him since she would have considered it demeaning, if more classically feminine in an old-fashioned sense, to let him win.
There have been three major influences that have shaped the viewpoint I present here. I have acknowledged my debts to Piaget's investigations in the development of intelligence in infancy, and to the biological viewpoint advanced by ethologists. The third debt I owe to psychoanalytic theory. The way in which my approach has been shaped by psychoanalytic theory is so pervasive that I should like to believe that the findings and views reported here could be assimilated into the main body of contemporary psychoanalysis. Nevertheless there are not only differences in terminology but also differences in approach and in concepts, which may make it difficult for the reader to perceive the compatibilities that are present.

Let me first acknowledge the most obvious and most general debts. Freud was the first to draw attention to the significance of infancy as a time when processes are set up, which, although modified by later experiences, nonetheless are potent in influencing the later course of development. He was thoroughgoing in his insistence that psychological processes are firmly anchored in bodily processes and drew heavily upon the biological science of his day in formulating his views. He was the first to assert the significance of the interaction between mother and child in the earliest years of life, holding that the mother-infant relationship was the prototype of all later inter-personal relationships. In a very real sense the whole study of mother-infant interaction was inspired by the Freudian emphasis.

I have not attempted to draw any systematic parallels between my observations of infant behavior and a psychoanalytic interpretation of infantile experience. It is my belief that it would be very profitable to seek parallels. Such a search would both provide a necessary check on the thoughtful speculations and reconstructions of psychoanalytic theories and enormously enrich the understandings that can be derived from purely behavioral studies—although it would take me too far afield to specify the ways in which enrichment could be expected. [Ainsworth, 1967, pp. 429-430, 435-437]
She had then gone on to state her "differences" with psychoanalysis, which focused upon secondary drive theories and are now largely accepted (see Ainsworth, 1969; Bretherton, 1992 and Hesse & Main, *Psychoanalytic Inquiry* 19/4, 1999 for review).

Ainsworth's Baltimore study is too well known to require a long description (for an overview see Bretherton, 1992; Hesse & Main, 1995). It was originally intended to provide a replication study for her Uganda findings, and again she selected 26 mothers and paid their pediatric visits in partial compensation. This time she and her assistants observed mothers and infants (a particular observer always carried through the entire study for a particular dyad) in four-hour blocks, beginning in the earliest weeks of life, observing in total somewhere between 66 and 80 hours per dyad, and concluding her study at the end of the first year. She served as an observer for a few families, since she did not want to become distant from her work, and she and the remaining observers unobtrusively took notes on stenopads throughout the visit. However, they also took breaks for coffee or tea or lunch when it was offered, and then assisted, wherever appropriate, in cleaning up the dishes. As soon as the visit was over, they dictated their notes (about 12 hours of dictation for each 4-hour visit). In general they were semi-participant observers who were friendly but simultaneously maintained a professional distance which they were able to make acceptable and understandable for the mothers. Once, however, Mary Ainsworth not only relaxed with one of the mothers she had assigned to herself, but to her chagrin, relaxed excessively. Her record for this visit began with the confession that she had behaved most unprofessionally following the official conclusion to this visit, allowing herself to linger too long. During this time, the mother had discussed her life with Mary Ainsworth and the observer, dropping all professional boundaries, had in turn discussed hers!

This may be a reasonable place to make the observation that Mary Ainsworth was highly protective of the confidentiality of her research participants. Her students knew her cases (even though they appeared to us only in typescript) only by number, and to this day I do not have the slightest idea regarding even the first, let alone the last name, of a single one of her subjects (although she has acquired tender and very secure feelings for the numbers 2, 3, and 11). Ainsworth's unusual dedication to confidentiality was transmitted to her students, and I can imagine it as representing not only her clinical training, but also representing the import which individuals, as individuals, had for her. In addition, she was very grateful to both the African and American mothers who had let her into their homes. Here I should add that, urged for many years to still further increase her fame in later life by writing up a book based on an adult follow-up study of her Baltimore, she refused on the grounds of the risk of breaking confidentiality. Her firm reply was that, if only one person were injured by it, it would not have been worth it. Her focus was upon the betrayal of personal confidence, based on the hours and hours of exacting observations which not only judged some mothers as "insensitive" but also could tell some young people that they had been "insecure". I do not think she had the faintest worry about a lawsuit. This was a matter of ethics.

Between the Uganda study and the Baltimore study there was, as I have just mentioned, a marked change in what Ainsworth considered the critical aspects of mothering and infant-mother interaction. First, with respect to infant-mother interaction, she continued to move away from simple frequency or "count" data popular at the time (Sroufe & Waters, 1977a), and in examining and having her assistants code any particular aspect of infant of maternal behavior she required to know the immediate context, including not only the setting but mother and infant mood; the immediately preceding events; a precise verbal description of the event itself; the manner of its conclusion; and what happened immediately following. This is an emphasis upon context, patterning and meaning which-readily accepted as necessary by psychoanalysts, but rejected by most research psychologists of the 1960's as "unscientific"-characterized as well her strange situation work (see Bretherton, 1992).

Early in the Baltimore study, Ainsworth had checked again on her Ganda "maternal warmth" variable: Again it had no relation to infant

7 Joining others in urging her nonetheless to complete a follow-up study and a final book, I suggested she just change the sex of the children to protect confidentiality, and received a scientifically scorching look in return. She said that that was a flatly impossible solution, because gender was so much a part of each person's developmental trajectory that in any report tracing that trajectory she would then be failing the field, misleading researchers, and lying as a scientist. On somewhat mortified reflection regarding the full course of development (I had been thinking only of changing the sex of the babies) I have had to concede that she was right.
security. She now took one full year (aided by her graduate students) to devise four very long, single-spaced scales describing (1) mother's overall "sensitivity to infant signals and communications" and- considered as critical aspects of mothering contributing to sensitivity (2) the mother's observed acceptance vs. rejection of her infant, (3) her tendencies to cooperation vs. interference, and (4) to accessibility vs. neglect.

As noted above, these new scales reflected at once Ainsworth's interest in cognitive psychology and psychoanalysis, and anticipated researchers' present interests in metacognitive monitoring (Main, 1991), reflective self (Fonagy et al, 1991; Fonagy & Target, 1997), and theory of mind (e.g., Ferguson & Gopnik, 1998). Here are some extracts from Ainsworth's "sensitivity" scale:

The mother's ability to interpret accurately her baby's communications has three main components (a) her awareness, as previously discussed; (b) her freedom from distortion, and (c) her empathy. An inattentive, "ignoring" mother is, of course, often unable to interpret correctly the baby's signals when they break through... for she has been unaware of the prodromal signs and of the temporal context of the behavior. But even a mother who is highly aware and accessible may misinterpret signals because her perception is distorted by projection, denial, or other marked defensive operations. Mothers who have distorted perceptions tend to bias their "reading" of their babies according to their own wishes, moods, and fantasies. For example, a mother not wishing to attend to her baby might interpret his fuss as attention as fatigue and, therefore, put him to bed... or a mother who is somewhat rejecting of her infant might perceive him as rejecting and aggressive towards herself. Mothers who least distort their perceptions of their babies have some insight as to their own wishes and moods, and thus can more realistically judge the baby's behavior. Furthermore, they are usually aware of how their own behavior and moods affect their infant's behavior... The mother must be able to empathize with her baby's feelings and wishes before she can respond with sensitivity...

The [highly sensitive] mother is... able to see things from B's point of view; her perceptions of his signals and communications are not distorted by her own needs and defenses... When she feels that it is best not to comply with his demands-for example, when he is too excited, over-imperious, or wants something he should not have-she is tactful in acknowledging his communications and in offering an acceptable alternative.

And here are some extracts from Ainsworth's scale for acceptance vs. rejection:

The assessment of the balance between positive and negative is not easy. The social norm is that mothers love their babies and do not reject them. The angry, rejecting, negative components of the mother's relations with the baby tend, therefore, to be suppressed or repressed... Finally, it is acknowledged to be healthy for a person-even a mother-to give vent to angry feelings rather than trying to submerge them with the consequence that they may simmer for long periods of time during which they color the tone of behavior and interfere with positive feelings. Momentary outbursts of anger or irritation must not be given undue weight if they are embedded in an otherwise clearly positive, warm, loving relationship. On the other hand, the rater must be alert to signs of submerged resentment...

Some mothers clearly have positive feelings uppermost; they express them frequently and spontaneously and without any apparent striving to play a loving role, to make a good impression, or even to be kind to the baby. They acknowledge the baby's exploratory interests, and do not feel hurt when they lead him away from her... Although sometimes the baby may seem clearly angry at her, she interprets neither such episodes, nor episodes of more diffusely uncooperative or annoying behavior, as adequate reason for her to feel hurt or to institute retaliative measures. She may feel a brief surge of annoyance, but she does not consider the baby himself as a suitable target on which to focus her anger. She may acknowledge his anger. She may openly express her own exasperations. She may discourage the behavior in question. She may deal with her own momentary irritability by some means which gives her a chance to "cool off" before resuming her interaction with the baby. But she does not
What was absent from the Uganda study, however, was an opportunity for observing the infant in circumstances which are most likely to bring defensive processes into play—that is, situations involving particular kinds of stress. The strange situation procedure devised in conjunction with the Baltimore study did not, then, involve just any kind of stress, but rather—(a) placed the baby in an unfamiliar setting, which provided one "natural clue to danger", in which (b) providing a second clue to danger, the mother twice left, producing two stressors specifically identified by Bowlby as likely to arouse the attachment behavioral system. Faced with these combined clues to increased danger, relatively high levels of attachment behavior were anticipated.

More specifically, Ainsworth's expectation (and Bowlby's) was as follows. First, when initially presented with new toys and an unfamiliar setting, all babies would use the mother as a secure base; however, when the mother left, they would begin to show signs of distress, often by crying or calling for her. On mother's return, they would immediately seek proximity and contact. Then, with contact re-established, they would be comforted and return once more to exploration and play. However, this behavior pattern did not appear in some infants, and appeared only in infants Ainsworth would later (as based on infant and maternal home behavior) term secure.

Let us now consider the second, and perhaps most important contribution made by the Baltimore study. This was the new understanding of defensive processes as related to specific patterns of infant-mother interaction which resulted from combining observations of the infant's response to a stressful, unfamiliar situation with observations made in the familiar setting of the home. In the Ganda study, Mary Ainsworth had identified infants as insecure largely on the basis of, frequent crying which had no obvious rationale, and additionally was not terminated by the mother's presence.
Mary Ainsworth's awards came late in her life, in good part because it was difficult for many American research psychologists in the 1960's and 1970's to understand either her penchant for home observations, or her simultaneous concerns with individual and group response patterns. Like the Nobel prize-winning geneticist Barbara McClintock (famed for her determination to understand the development of each individual ear of corn in the crops with which she experimented, see Keller, 1983), then, Ainsworth was determined to attempt to trace the development of each individual infant, mother, and infant-mother dyad as fully as was possible, and to devise a theory or rule system which did not ignore or de-emphasize the mis-fitting behavior of even one individual or dyad. This would necessitate several years' worth of study of her home narratives by students "blind" to strange situation behavior, years in which mate-, nal and infant behavior moved into far sharper relief.

At the same time, it was only following several years of examining and re-examining the narrative records of the strange situation behavior of the Baltimore infants on Ainsworth's part that it became possible to place each infant's behavioral and emotional response to the procedure into meaningful groupings and sub-groupings (or, alternately, categories and sub-categories, or "organizations of attachment"). Between presentation of her first sample of 16 dyads and presentation of her full sample of 23 infants (three infants' strange situation behavior could not be utilized), she had shifted her emphasis from separation responses to reunion responses as best representing the nature of the infant's attachment. Moreover, she had shifted one infant who failed to cry on separation, but greeted the mother brightly and then took the initiative in interaction, from insecure-avoidant to a new sub-category of secure attachment (B 1). This was the only infant placed in this sub-category, but subsequent work in my own laboratory, and most likely that of others, has indicated that children who as infants fall in Ainsworth's B1 secure sub-category remain distinguishable from other secure infants at least to six years of age (as seen, for example, in patterns of parent-child discourse following separation, see Strage & Main, 1985).

Ainsworth now devised a highly complex system in which both major categories and sub-categories of response to the strange situation procedure reflected both infant and maternal behavior in the home. As is obvious, infants could now be classified into specific groups (categories) if their behavior conformed to specific criteria derived from a clinically informed attachment perspective, although the infants might well respond differentially to the two environments. Thus, for example, an infant might behave differently in the home than in the stressful strange situation procedure, either because they were undefensive (the infants of sensitively responsive mothers did not cry on brief separations in the home, but did in the unfamiliar environment), or because they were defensive (see below).

In terms of her major categories or "attachment organizations", Mary Ainsworth had now combined home experience and strange situation response, to emerge with the following three patterns:

(i) The formation of a favorable relation to the mother as observed in the home setting. This was identified through the mothers' sensitivity to the infant, echoed in the infant's evident enjoyment of physical contact, absence of anxiety regarding brief separations, and ready use of mother as a "secure base" for exploration and play. Under unfamiliar circumstances, in contrast, infants in this group readily expressed distress in response to the mother's leave-taking. However, they actively, competently established contact with the mother upon her return and then returned to exploring the new environment. These are Ainsworth's "secure" infants (sometimes termed pattern B).

(ii) The formation of an unfavorable relation to the mother, who is insensitive and unpredictable in response to infant signals and communications, without being notably rejecting. In the home, the infant is observed to be actively anxious, but often also strikingly passive. In unfamiliar, stressful circumstances an exaggerated preoccupation with the mother and her whereabouts appears, to the exclusive of interest in the new environment. Heightened, prolonged confused expressions of anxiety, and sometimes also anger, continue throughout the entire procedure. These are Ainsworth's "ambivalent/ resistant" infants (sometimes termed pattern C).

(iii) The formation of an unfavorable relation to the mother, who is rejecting of infant attachment behavior. In the home, most infants in this group are actively anxious and angry, and exhibit distress regarding the briefest of separations. However, in sharp contrast, prodromal defensive behavior appears in the unfamiliar, stressful setting of the
strange situation. This is indicated in an insistent focus upon exploration throughout the procedure, together with the simultaneous suppression of expressions of anger, anxiety and affection towards the mother. These are Ainsworth's "avoidant" infants (sometimes termed pattern A).

Ainsworth's work was conducted in the context of her clinical and personal interest in psychoanalysis and her appreciation of the necessity-shared by psychoanalysis and evolutionary theory-for understanding each individual's behavior in terms of universal processes (and defenses against the operations of those processes). Her dualistic approach was applied both to her natural observations and to the classification systems for infant home and strange situation behavior developed in conjunction with the Baltimore study. If this point is lost, Mary Ainsworth can readily be seen as having simply developed a "typology" of secure, insecure-avoidant, and insecure-ambivalent infants and infant-mother dyads-a misconceptualization which she found repellant. When this point is understood, we can, in contrast, credit her for the recognition of "prodromal" defensive processes.

As a simple example of Ainsworth's approach, she by no means believed that babies who showed no distress on being left alone in an unfamiliar environment, and then ignored and avoided their mothers upon reunion (pattern A or "insecure-avoidant" babies) were of a different "type" from those who cried and sought contact. To begin with, her home observations had demonstrated that, rather than being not-yet-attached or simply excessively independent, these babies were as definitively attached to their mothers as were babies who cried upon separation, and then sought contact.

Bowlby's theory had postulated that separation in an unfamiliar environment is a biologically or phylogenetically channeled "natural clue to danger" which will inevitably activate the attachment behavioral system in any one-year-old infant. In keeping with Bowlby's theorizing, Ainsworth believed that, contrary to appearances, the attachment behavioral system was no doubt activated by the strange situation procedure for avoidant, as for secure, infants, and indeed recordings made during the procedure have pointed to equally strong psychophysiological indices of distress (e.g., Sroufe & Waters, 1977b; Spangler & Grossmann, 1994). Ainsworth, however, saw these rejecting infants as responding to the increased stress imposed by the strange situation by actively (although, of course, not necessarily consciously) shifting their attention so as to inhibit the behavioral and emotional manifestations of attachment-notably, proximity-seeking, crying, and anger (Ainsworth & Bell, 1970; see also Main, 1981, 1995). Through her studies of home-reared, non-traumatized infants in the natural context, then, Ainsworth had extended attachment theory and made ordinary infant-mother interactions (such as subtle, chronic rejection) and their consequences (such as the appearance of anxiety and anger in the home, coupled with the disappearance of each of these effects under stress) accessible to scientific study.

It is worthwhile noting here that, while having the greatest admiration for Ainsworth's theorizing and observations of attachment behavior in general, Bowlby initially had his doubts about, and considerably less interest in, her accounts of individual differences in the behavior of one-year-old infants placed in a structured stressful situation. This early exchange (taken from the discussion which follows Ainsworth, Bell & Stayton, 1971) is illustrative. The discussion succeeds one of Ainsworth's earliest presentations of her work, in which she demonstrated the relations between her two infant attachment classification systems (one for strange-situation behavior, one for behavior in the home), and the relations between infant strange situation behavior and maternal sensitivity, acceptance, cooperation, and accessibility in the home. Ainsworth has, then, just previously presented the link she has uncovered between avoidance of the mother under stress, and maternal rejection in the home.

Ainsworth: . . . . As for looking-away behavior, I was not geared to note it when we began to observe infants in a strange situation. It first became obvious in its most conspicuous form where a

8Those closely familiar with Ainsworth's sub-groups and maternal sensitivity scales will recognize that I am myself glossing over an important distinction with the insecure-avoidant category. In point of fact, among Ainsworth's six avoidant infants, four were extremely avoidant (termed A1), and two were only moderately avoidant (A2). The mothers of all of these infants were considered rejecting of their infants, but the mothers of the extremely avoidant infants were additionally interfering, while the mothers of the moderately avoidant were, in sharp contrast, relatively neglecting and inaccessible. It is the extremely avoidant infants who exhibited the greatest anxiety and anger in the home.
child would start towards the mother, stop, turn and walk away, refusing to come back despite the mothers' entreaties. I then began to notice that some babies, on reunion with the mother in the strange situation, merely ignored her whereas others showed this much more distinct looking-away behaviour. It was not until a careful examination of the home-visit data that we were able to make hypotheses about what the baby might be defending against.

Bowlby: I am not at all sure that the concept "defence" is justified here. It carries with it a lot of theoretical overtones in psychoanalysis, and I am not convinced that the behaviour you describe conforms to these. A more parsimonious description would be proximity avoidance, as that does not imply the same theoretical assumptions.

Ainsworth: One reason for calling it defensive was that the behaviour pattern reminded me of the kind of response that one finds after longer separations and that you labeled "detachment behaviour". It involves a looking away and blankness that can be seen when the child is reunited with the mother after prolonged periods away from her. Now, I do not think that a 3-minute separation is long enough to evoke this behaviour if it were not already part of the child's repertoire at home. It is, in other words, a response that the child acquires as a result of his normal interaction with the mother and hence shows variation according to the type of mother-child relationship.

In later years, Bowlby, a "life-long learner" (Suomi, 1999) with a considerable capacity for self-reflection and self-criticism blamed himself for his early doubts regarding the significance of individual differences in the organization of attachment in early infancy. Thus, a few years following the somewhat daunting exchange I have extracted here Bowlby began to see just what Ainsworth had meant from the beginning, and just how far her work could and would take clinical and developmental psychology, and attachment. In this context, he worried that he had been less supportive than he should have been early on of the findings of this very dear friend regarding the complexity of early infant-mother interactions and their outcomes. This was perhaps at least in part due to an early aversion of his own to the complex psychological processes attributed to very young infants by Melanie Klein. With this in mind, and in hopes of providing the most visible form of support which would be possible, he dedicated his final book (A Secure Base) to Mary Ainsworth, "who introduced the concept. . .".

However, in truth I believe Bowlby need not have worried. Ainsworth largely took his criticisms as friendly scientific cautions of the kind she had herself offered him in her early letter warning against his dangerous entrée into the field of ethology (Bretherton, 1992). Moreover, even if he doubted some of the complexities she thought she saw in one-year-olds, his general admiration for her skills and theorizing were reflected in their long academic and personal correspondence, in which his letters to her were warm, concerned regarding even the smallest of her concerns, and loving.

As is obvious, Ainsworth's three years work with John Bowlby in London had greatly influenced her, and led to the development of a deep, unambivalent friendship which spanned the course of 40 years. At the same time, both Ainsworth and Bowlby were independent thinkers. As noted above, Ainsworth was sufficiently dubious regarding Bowlby's initial enthusiasm for placing infant-mother interaction in the context of an ethological and evolutionary paradigm that she had written to warn him away from this line of thinking just before taking up the natural observations of mothers and infants in Uganda which convinced her that he had been right (Bretherton, 1992). Similarly, as the reader has seen, Bowlby was initially doubtful regarding the meaning which could be attributed to individual differences in the behavior of one-year-old infants. However, these two friends were too secure in their relationship to one another to worry about matters as small as their initial inability to recognize the central and greatest contributions each had made to their mutual field.

Below, I give the reader a brief overview of some of the studies directly succeeding the Baltimore study, whose confirming outcomes eventually won Mary Ainsworth the highest awards in her field. Nonetheless, as a scientist setting herself the highest standards, Ainsworth had of course never intended her first Baltimore study of 26 dyads to stand on its own. Rather-worrying about the possibility
of contaminations among variables which were only identified during the course of the study-she had intended it as a pilot investigation. In her second, planned replication study, she would make no changes, develop no new infant or maternal variables, re-conduct the strange situation procedure with no revisions in her sub-groupings, and hence properly and completely re-test her initial results. However, her applications to granting agencies to conduct this new Baltimore study were repeatedly turned down. This was done on the grounds that her earlier work had been somewhat peculiar in its virtually clinical focus upon individuals, and that the claims she had made regarding the import of differences in the organization of infant-mother attachment involved shockingly small-sized groupings, and were very unlikely to be replicated. Consequently, she was never again funded.

In the end, of course, this did not matter, because of the 30 years of succeeding and still continuing tests, replications and extensions of Ainsworth's theorizing and of her Baltimore "pilot" study, which I have included for the interested reader within the appendix.

Charlottesville, Virginia: Replicating and Extending Understanding of the Relations Between Parental "State of Mind with Respect to Attachment" and Infant Attachment Status

As I had noted earlier, Mary Ainsworth enjoyed teaching, enjoyed her Department and colleagues at the University of Virginia, and was not delighted to find herself subject to involuntary retirement at the age of 70. At the same time, whenever pressed to publish much more regarding her own work, she had for some time already been taking a somewhat unusual stance. I had frequently heard her reply to those urging her to continue the analyses of her earlier studies, or to write up her work in the form of some new volume, that she was instead electing to leave the new publications and new directions for the field to her students and colleagues, and to their students, and to devote some portion of her time to assisting, critiquing, and encouraging them as she could. She did this in the form of (often long) letters of response to attachment-related manuscripts sent to her, although sometimes she responded instead or as well through lengthy telephone calls. I would like to add here that she was in no way interfering, and in fact retained the remarkable interest in failed hypotheses (and accompanying tolerance for uncertainty and ambiguity) which she had demonstrated so clearly in *Infancy in Uganda*. Shortly following Ainsworth's death, her former student Jude Cassidy remarked on a quality which I realized I had so long for granted as to overlook it. No matter what another researcher might be interrupting, she answered the telephone with enthusiasm, and had time for them. This did not mean that she provided a meaningless positive response to all attempted empirical and theoretical contributions by her students, and as late as 1990 I remember remarking to an editor that I would be either withdrawing or monumentally revising a paper I had submitted, since it had been "panned on both sides of the Atlantic" (that is, by both Mary Ainsworth and John Bowlby).

One of my first acts on arriving at Berkeley was, together with Donna Weston and Judith Solomon, to break apart Mary Ainsworth's three-part attachment classification system. This step had, however, a long history, since together with Mary Ainsworth, I had from graduate school onwards been fascinated by the behavior of animals in conflict situations as described and systematized by the ethologist, Robert Hinde (Hinde, 1966). For this reason, I had recorded conflict behavior in the 21-month-old toddlers seen in conjunction with my doctoral thesis, and had begun, by 1973, to review Mary Ainsworth's narrative records for evidence of conflict behavior as it might occur within the home. By 1981, Donna Weston and I had reviewed a substantial portion of our low-risk, Berkeley strange situations, finding approximately 13% of them "unclassifiable" (the equivalent of the "unclassifiable" or "cannot classify" category of the Adult Attachment Interview: see Hesse, 1999) and finding these infants especially likely to exhibit "conflict" or "disordered/disoriented" behaviors in a stressful setting (Main & Weston, 1981). Later, Judith Solomon and I reviewed our Bay Area videotapes of unclassifiable infants, and found the majority of them "disorganized/disoriented" (Main & Solomon, 1986, 1990). We had now devised a fourth category to add to Ainsworth's original system.

I end now with one of the most comic of occurrences in my long term friendship with Mary Ainsworth (this anecdote, involving a parapraxis, is, I believe, an appropriate conclusion to a piece concluding my contribution to this volume). I had, of course, kept her up to date with the development of this new category, although, as
noted, it broke apart her existing system (I have been at pains to describe here, however, that continuing revisions in her thinking and classification systems had been one of her own outstanding characteristics).

Sometime in the middle of these revisions, I received a letter addressed to my home in Berkeley, in a typescript I found wellknown. On opening the letter, I discovered a miscarriage had occurred in the form of address, since the enclosure inadvertently began, "Dear John". It was not long until I could discern that I was not the intended recipient of this communication, and while I would hope that by now I would not have continued to read the letter, in my youth I then read on.

The most interesting paragraph included some slightly querulous remarks regarding the new, disorganized/disoriented attachment category, asking what the addressee himself thought regarding "Main's latest revisions and categories!". Having completed reading the letter, I immediately telephoned its writer, apologized for reading it, and cheerfully read her the offending paragraph. After a short silence, Mary Ainsworth began laughing. "It is evident", she said, "that I felt guilty saying anything negative about your work to John. Don't you think the unconscious is a marvelous thing?"

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