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Mary Ainsworth: Insightful Observer and Courageous Theoretician

Inge Bretherton

University of Wisconsin-Madison

Mary Ainsworth's pioneering work has changed conceptions of infant-mother relationships, and by extension, conceptions of human relationships more generally. As John Bowlby's major collaborator in the development of attachment theory, she is commonly credited with providing supporting empirical evidence for the theory while Bowlby is regarded as creating its basic framework. This view is too simple. Ainsworth's innovative approach to studying the development of relationships not only made it possible to put some of Bowlby's ideas to empirical test, but her insights expanded the theory itself in fundamental ways. Among her major contributions are the concept of the attachment figure as a secure base from which an infant can explore the world, the identification of patterns of infant-mother attachment as indicators of relationship quality, and the concept of parental sensitive responsiveness to infant signals as precursor to secure attachment. Without this work, attachment theory and research would not have attained the importance they currently hold in developmental and social psychology.

That Ainsworth and Bowlby became collaborators was due to a series of fortunate coincidences, although their thinking about personality development had developed along congenial lines before they met. Their first encounter took place when both were in mid-life—after both of their professional careers had been interrupted by military service during the Second World War, but their most creative and original contributions still lay ahead.

Biographical Sketch

Mary Dinsmore Salter, born on December 1, 1913, in Glendale Ohio, was the eldest daughter of Charles and Mary Salter. She grew up in Toronto, Canada, where her father was transferred by his company in 1918. Mary had fond memories of her father, who was the parent who tucked the children into bed at night and sang to them. Her relationship with her mother was less warm. She was a precocious child with a strong desire for learning, who learned to read at the age of 3. Her interest in psychology was sparked by William McDougall's (Chapter 6, this volume) Character and the Conduct of Life (McDougall, 1927), which she discovered during her final year in high school.

"It had not previously occurred to me that one might look within oneself for some explanation of how one felt and behaved, rather than feeling entirely at the mercy of external forces. What a vista that opened up" (Ainsworth, 1983, p. 202).

Thus, when she entered the University of Toronto as a 16-year-old, Mary Salter had already decided to become a psychologist. As one of only five students, she was admitted to the challenging and intensive Honours Course in Psychology. There was, she says a “messianic spirit that permeated the department—a belief that the science of psychology was the touchstone for great improvements for the quality of life” (Ainsworth, 1983, p. 201). It was a spirit in which Mary shared.

When she obtained her bachelor’s degree in 1935, her parents “went along” with her wish to pursue a Ph. D. in psychology, even though her father had initially suggested that she work as a stenographer for a while before getting married. Mary’s doctoral mentor was the founder and first director of the Institute of Child Study at the University of Toronto, William Emet Blatz (Chapter 14, Pioneers II), whom some considered the Doctor Spock of Canada (Wright, 1996). Blatz’s research program in which Mary had become interested during her undergraduate years focused on his “security theory.”

According to Blatz’s theory, “secure dependence” on parents enables infants and young children to muster the courage to explore the unfamiliar, and thus to develop towards “independent security” (or self-reliance). Because pure independent security is unattainable, however, the “immature dependent security” of childhood must be replaced with a more mutual “mature secure dependence” on age peers, and eventually, a sexual partner. Where such a relationship develops each partner can find security in the skills, knowledge, and emotional support of the other. However, not all individuals succeed in achieving mature (mutual) dependence. Some remain immaturely dependent whereas others rely on defensive maneuvers to overcome their feelings of insecurity. Those familiar with attachment theory will recognize some of these formulations as similar to Ainsworth’s concept of the parent as secure base for a child’s exploration and individual differences in patterns of attachment.

Upon completion of her dissertation (Salter, 1940), based on Blatz’s security theory, Mary Salter stayed on as lecturer at the University of Toronto. In 1942, wishing to contribute more directly to the war effort, she joined the Canadian Women’s Army Corps, in which she attained the rank of major. Through participation in officer selection procedures, she gained extensive expertise in clinical interviewing, history-taking, test administration and counseling. These skills served her well when she was hired as assistant professor of psychology at the University of Toronto in 1946 and asked to offer a course in clinical assessment. To bolster her clinical skills further, she sought training in the Rorschach Test with the well-known interpreter of this projective test, Bruno Klopfer. Klopfer was so impressed by a manual about the Rorschach that Mary Salter prepared for her students, that he asked her to co-author a volume “Developments in the Rorschach Technique” which was later published under her married name (Klopfer, Ainsworth, Klopfer, & Holt, 1954).

In addition to teaching, Mary co-directed a research team headed by Blatz. Members of this team developed a variety of paper-and-pencil scales to assess familial and extrafamilial aspects of adult security (see Ainsworth & Ainsworth, 1958). In 1950 she married a member of the team, Leonard Ainsworth, a World War II veteran who had just completed his master’s thesis.

Research on Attachment and Security

To continue as married professor and graduate student in the same department made the Ainsworths uncomfortable, so they moved to London where Leonard had been accepted into a doctoral program. Mary had not been able to line up a job before leaving Canada, but a London friend from war days drew her attention to an announcement in the Times which called for a researcher with diagnostic skills who could assist with a study on early personality development, specifically the effects of separation from the mother in early childhood. The research was directed by the psychoanalyst and child psychiatrist John Bowlby at the Tavistock Clinic. Ainsworth joined Bowlby’s team, not realizing at the time that this decision would reset the whole direction of her research career (Ainsworth, 1983; Bretherton, 1992).

Research in London

Ainsworth’s closest colleague at the Tavistock was James Robertson, who had been charged by Bowlby with observing young children before, during and after being hospitalized or institutionalized. In those days, parental visiting in hospitals was severely restricted, and children’s obvious distress at separation was barely acknowledged. One of Ainsworth’s tasks was to assist Robertson with the analysis of his detailed observational notes. She was so impressed with the quality of Robertson’s data that she made up her mind to adopt his methods should she ever have the opportunity to conduct a study of her own. Interestingly, Robertson had obtained his training in ob-

servation while working at Anna Freud's wartime residential nursery for evacuated children where all members of the staff, no matter what their job description, were required to write their observations on cards to be used in subsequent discussions of the children's development.

In addition to gaining experience in the analysis of observational data, Ainsworth became intrigued with Bowlby's quest to find a more compelling explanation for young children's distress in response to enduring separation from parents than the then current view. This view, shared by psychoanalysts and learning theorists alike, was that babies become attached to their mothers because they feed them and fulfill the babies' other basic needs. Ainsworth, who held this view herself, became quite uneasy when Bowlby began to toy with ethological explanations of infant-mother attachment, inspired by Konrad Lorenz' studies of imprinting. She even warned Bowlby that publishing these ideas might ruin his reputation.

The Move to Uganda

After Leonard Ainsworth completed his doctorate in 1953, he applied for a job at the East Africa Institute of Social Research in Kampala, Uganda. Mary was not at all enthusiastic about going to Africa. Once in Uganda, however, she saw an opportunity to fulfill her dream of conducting an observational study modeled on Robertson's work with hospitalized children. The director of the Institute managed to "scrape together" funds (Ainsworth, 1983, p. 208) for a study of mother-infant separation at weaning when—Ainsworth had been told—infants were traditionally sent away to relatives for a few days to "forget the breast." After the study had begun, Ainsworth quickly discovered that most mothers no longer followed this custom and that her study design was therefore unworkable. Instead of giving up, she decided to document normative developmental changes and individual differences in patterns of mother-infant interaction. The study participants were 26 polygynous, monogamous, and separated Christian and Muslim mothers and their infants who lived in 6 villages surrounding Kampala. Ainsworth's appreciation for the families she studied is best conveyed by her description of one of the children:

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 way, devote time to playful, intimate interchange with William, and also concern herself with the other children according to their needs.... She used a wheelbarrow as a pram, and there lay William, nested amid snowy white cotton cloths. The wheelbarrow could be moved from place to place—out to the garden where his mother worked, or under the shade tree where the other children were playing, and never out of the earshot of some responsible person (Ainsworth, 1963, pp. 85-86).

Unlike others who maintain that studies in non-Western societies should only be undertaken by members of that society, Ainsworth (1982, p. 210) felt that "it is easier to be objective when viewing another society, and then, as I discovered later, it is easier to take a fresh, unbiased view when later undertaking research in one's own society."

Although she had some notion of what she was looking for, Ainsworth was primarily on an exploratory, hypothesis-generating mission. In addition to frequent home observations, most of them lasting over 2 hours, she conducted detailed interviews with the help of a local social worker who served as interpreter and collaborator. She also made a serious effort to learn enough of the local language to engage in simple conversation. As a result of this experience, she later commented in an autobiographical sketch (Ainsworth, 1982, p. 210): "It is a pity that one cannot require field work in another society of every aspiring investigator of child development."

Not long after beginning her observations of mother-infant interactions in Uganda, Ainsworth realized that Bowlby's emerging framework about the origins of attachment provided a much more useful theoretical basis for studying infants' growing attachment to their mothers (and other family members) than the theory of "cupboard love" proposed by classical psychoanalysis and learning theory. Somewhat surprisingly, however, she did not immediately let Bowlby know about her "volte-face" (Ainsworth, 1982, p. 210). Thus the first developmental study viewing infant-mother attachment from an evolutionary perspective was not only conducted in a non-Western culture, but several years before Bowlby himself presented his formal account of attachment theory to the British Psychoanalytical Society in 1958 where it stirred up a storm of controversy.

It is during the Ganda study that Ainsworth rediscovered the secure base phenomenon which she had first described in her dissertation with Blatz:

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).

The Johns Hopkins University

The Ainsworths' next move, in late 1955, was to Baltimore where Leonard had found a position as forensic psychologist. Mary Ainsworth explored employment possibilities at The Johns Hopkins University with the result that a lecturer position in clinical psychology was "patched up" for her (Ainsworth, 1983, p. 211). She also held a part-time clinical appointment at the Sheppard and Enoch Pratt Psychiatric Hospital and conducted a small private practice in the diagnostic assessment of children with emotional problems. This experience, added to her earlier expertise, proved to be invaluable for her later research methodology, but it did delay the analysis of her observations in Uganda for several years.

In 1958, Ainsworth was offered a permanent position as associate professor of developmental psychology at The Johns Hopkins University. In the same year, John Bowlby sent her a preprint of his seminal paper on attachment theory, "The Nature of the Child's Tie to His Mother" (Bowlby, 1958). In 1960, Bowlby was able to visit Ainsworth in Baltimore after he had spent the year at the Stanford University Institute for Advanced Study. This gave her an opportunity to provide him with details about her study of mother-infant attachment in Uganda, and initiated the second phase of their collaboration. While Ainsworth was a member of Bowlby's research team in London, he had mostly played the role of mentor, but during this second phase of their joint work, they became equal partners who deeply influenced each others' thinking through frequent correspondence and exchanges of draft articles and book chapters for detailed comment and critique as well as intermittent transatlantic meetings.

In 1961, a year after a stressful divorce, Mary Ainsworth made her first public presentation of findings from her Ganda study at a meeting of Bowlby's Tavistock Mother-Infant Interaction Study Group in London. The reception of her work by the participants—distinguished developmentalists and ethologists from Britain, France and the United States—was somewhat lukewarm (Ainsworth, 1963, transcription of subsequent discussion, pp. 104-112). One developmental psychologist commented: "I am not really happy about the application of words like security and anxiety as applied to early infancy." Another queried: "They were reinforced for crying, yet they did not cry?" and later cautioned: "I think the word 'attachment,' like the terms 'intelligence' and 'perception,' is much too broad or abstract to serve as a label for a domain of scientific interest." The question: "How do you know that the child was attached?" was useful, however, because it led Ainsworth to "scrutinize the decision-making processes involved in such a judgment" (1977, p. 51). As a result she constructed a catalogue of behaviors (crying when the mother left the room, following her, greeting her on return with smiling, vocalization, excited bouncing, reaching or approach behavior) which might serve as a set of criteria for attachment if differentially shown to a specific individual. This catalogue and other insights from the Ganda study informed plans for a second observational study of infant-mother attachment during the first year of life, but this time in an industrialized society. After obtaining funds from the William T. Grant Foundation, the study was begun in 1963.

The Baltimore Study

The 26 families who participated in the Baltimore study were recruited through pediatricians before the infant was born and visited until the child was one year old. Monthly home visits were lengthy (4 hours) in order to encourage mothers to behave naturally while following their normal child-care and household routines.

Ainsworth never used checklists to record observations. Observers trained with the help of findings from the Ganda study noted interactive behavior in shorthand, interspersed by time-markers every few minutes, and then dictated a detailed narrative based on these notes into a tape recorder immediately after the visit ended. This technique was designed to capture the meaning and pattern of maternal and infant behaviors within their situational and

social context, something that mere frequency counts, even if reliably recorded, cannot do. This technique may well have been influenced by Ainsworth's expertise in clinical observation. The transcribed narratives served as the basis for data analysis, including the construction of scales. Data collection was completed in 1966, just before the publication of the book Infancy in Uganda in 1967 on which Ainsworth had worked with Bowlby's encouragement.

Several influential journal articles about the Baltimore Study and a book that summarizes the findings, Patterns of Attachment (Ainsworth, Blehar, Waters, & Wall, 1978), appeared over the next decade or so. Analyses of mother-infant interaction sequences during feeding, close bodily contact, face-to-face play, and crying yielded clear evidence that when a mother responded to her infant with sensitive responsiveness during the first three months of life, the pair had a more harmonious relationship during the last quarter of the first year. The finding (Bell and Ainsworth, 1972) that a mother's prompt and appropriate maternal responsiveness to her infant's crying during the early months was associated with less crying later in the first year was greeted with disbelief, especially by learning theorists. The latter were convinced that attending to a baby's crying necessarily served as a reinforcer to crying, and would definitely not foster advanced preverbal gestural and vocal communication. Eventually, however, Ainsworth's results led to changes in recommended parental practice.

The final observation of each infant-mother pair in the Baltimore study took place when the infant was 12 months old. Together with her assistant Barbara Wittig, Ainsworth had devised a laboratory procedure for assessing infants' use of the mother as a secure base for exploration (Ainsworth & Wittig, 1969). The idea for this was, in part, inspired by Harlow's (Chapter 17, this volume) study showing that infant rhesus monkeys, placed in an unfamiliar environment were able to engage in exploration while their "cloth mother" (a wire frame covered with cloth) was present, but not when only a "wire mother" (a wire frame fitted out with a bottle) was available. Infants would run to the cloth mother and cling to her tightly. After a while, still maintaining a tight grip, they would visually explore the novel cage and potentially frightening toy, and then break contact. They would manipulate the novel object, but intermittently scamper back to the cloth mother. By contrast, in the presence of the wire mother, the infant monkeys curled into a ball and screamed rather than engaging in exploration (Harlow, 1961).

Ainsworth's analogous 20-minute procedure, termed "The Strange Situation," took place in a playroom furnished with appealing toys to encourage infants to explore. In addition, they encountered a stranger and were twice briefly separated and then reunited with their mothers. A majority of infants behaved during this procedure as Ainsworth had expected. While the mother was gone, they stood near the door and many cried. When the mother returned, they approached her and requested contact by holding up their arms. Once comforted, they fairly quickly returned to play. Not all infants showed the expected pattern, however. Some, later termed "avoidant," snubbed the mother when she came back into the room by looking and even turning away or refusing to interact with her if she tried to engage them in play. A third and smaller group of infants protested loudly when the mother left, but seemed angry at her when she returned even though they also indicated a desire for contact. These "resistant" or "ambivalent" infants did not "sink in" when the mother picked them up. Not only were they difficult to calm, but they often pushed away from the mother when she did pick them up or angrily brushed away toys she offered (Ainsworth & Wittig, 1969). The behavior of the avoidant and ambivalent infants reminded Ainsworth of extreme versions of similar patterns that Robertson had described among somewhat older children when reunited with the mother following a long, traumatic separation (Robertson & Bowlby, 1952). Using the transcripts of dictated descriptions concurrently made by two side-by-side observers wearing earphones and watching through a one-way mirror, Ainsworth created a classification system and behaviorally-anchored rating scales for the Strange Situation that could be applied to classify infant behavior in subsequent studies. In doing so she was able to draw on her experience with developing manuals for interpreting clinical diagnostic tests, such as the Rorschach.

To help her interpret the meaning of the three different reunion patterns, Ainsworth then checked the Strange Situation classifications of secure, avoidant and ambivalent infants against home-observation analyses. This comparison revealed that mothers of secure infants had behaved most sensitively with them at home during the first three months of life, while mothers of avoidant infants had shown more rejection, especially of close bodily contact. Mothers of ambivalent infants had responded very inconsistently in response to their infant's attachment behaviors, behaving sensitively at times, but ignoring or rejecting their infants on many other occasions. Later in the first year, secure infants had the most harmonious interactions with their mothers, while those of the avoidant and ambivalent infants were more problematic (summarized in Ainsworth, Blehar, Waters, & Wall, 1978).

The documentation of links with home observations led to the wide spread use of the Strange Situation as a tool for assessing the quality of infant-mother attachment, but home observations were relatively neglected. Ainsworth repeatedly expressed regret about this turn of events: "I have been quite disappointed that so many attachment researchers have gone on to do research with the Strange Situation rather than look at what happens in the home or in other natural settings—like I said before—it marks a turning away from field observations and I don't think it's wise." (Ainsworth & Marvin, 1995, p. 12).

Given that the Baltimore findings were based on a relatively small sample, Ainsworth planned a replication study. However, when she applied for funds, federal review panels "while respectful of her research capabilities, replied that there was no point in replicating something of so little value" (Karen, 1994, p. 172), and her proposal was turned down.

Mary Ainsworth as Teacher and as Mentor

Despite extensive controversies aroused by attachment research, the late 1960s and the 1970s were an exciting time in the psychology department at Johns Hopkins. Ainsworth's innovative approaches to the study of infant-mother relationships attracted many graduate students (among them Silvia Bell, Mary Blehar, Inge Bretherton, Alicia Lieberman, Mary Main, and Sally Wall and—for one year until he left for Yale—Michael Lamb).

As a mentor, Ainsworth was exacting and caring. She was Dr. Ainsworth, not Mary, to her students until they were close to completion of the doctoral dissertation, but at the same time she conveyed a deep personal interest in her advisees' accomplishments. Unlike many doctoral advisors, Ainsworth required that students plan independent projects and encouraged them to develop new measures rather than rely on her own substantial data base and limit themselves to well-established methods. She preferred written statements as a prelude to oral discussions of research topics rather than engage in open-ended brainstorming. At the same time, she was an extremely thoroughgoing and helpful reader of what her students produced. Mary Main (2000) remembers spending many late afternoons and early evenings on the pleasant screened porch that surrounded Mary Ainsworth's home in Baltimore, discussing revisions of her doctoral dissertation.

Believing in hands-on training, Ainsworth encouraged beginning graduate students to assist their more advanced peers who were already collecting and analyzing their own data. She also insisted that participant families be made to feel valued. To establish rapport with families, all students were therefore required to make a home visit to explain their study before embarking on data collection.

In addition, Ainsworth was a challenging but inspiring classroom teacher. Her courses in developmental psychology were attended both by undergraduate and beginning graduate students. At a time when learning theory was still the dominant paradigm, the required readings for her introductory developmental psychology course were Freud's (1923) *The Ego and the Id*, Piaget's (1951) *The Origins of Intelligence in Children*, and Bowlby's new volume *Attachment* (1969). The latter included extensive summaries of concepts and findings derived from the Ganda study and preliminary findings from the Baltimore study without which Bowlby's book would have been much less influential.

Ainsworth's classroom teaching made a deep impression on a number of undergraduates who later became academics (among them Mark Cummings, Saul Feinman, Mark Greenberg, Milton Kotelchuck, Robert Marvin, Everett Waters, and Rob Woodson). Some also served as Ainsworth's undergraduate research assistants and thus gained expertise in the creation and analysis of home observation narratives. Upon entering graduate programs at other universities, these students based their doctoral research on attachment theory. One of these was Robert Marvin, who had served as observer for the Baltimore study, and who went on to conduct the first study of attachment in the preschool years at the University of Chicago, supervised by a psycholinguist (Marvin, 1972). In 1973, Everett Waters was admitted to graduate study at the University of Minnesota where he aroused Alan Sroufe's interest in attachment research, particularly the Strange Situation. The outcome was a classic co-authored paper "Attachment as an Organizational Construct" (Sroufe and Waters, 1977) and a very influential and still ongoing longitudinal study whose participants are now young adults.

In 1974, Mary Ainsworth accepted an offer from the University of Virginia, where she trained a second cohort of productive researchers (among them Jude Cassidy, Deborah Cohn, Virginia Colin, Patricia Crittenden, Carolyn Eichberg, Rogers Kobak, and Ulrike Wartner). Ainsworth's effectiveness in attracting and training attachment scholars who became influential investigators, theoreticians, and clinicians was responsible for the tremendous growth of attachment research beginning in the late 1970s. Mary Blehar conducted the first attachment study

of daycare, Mary Main investigated the attachment-exploration balance in toddlers and began a longitudinal study, Michael Lamb and Mary Main conducted Strange Situation studies with fathers, and Alicia Lieberman became director of the late Selma Fraiberg's clinical Parent-Infant Program and infused it with attachment theory. Further new ground was broken with the 1985 volume "Growing Points of Attachment Theory and Research" (Bretherton & Waters). Waters, with his student Deane, presented a new Q-sort to help observers describe infants' "secure base behavior" at home. Main and colleagues moved "attachment to the level of representation" with their analysis of the Adult Attachment Interview (Main, Kaplan, & Cassidy, 1985). The volume also presented attachment studies in Germany, Israel, and Japan. A few years later Kobak conducted the first attachment study with adolescents (Kobak & Sceery, 1988). The volume Attachment in the Preschool Years (Greenberg, Cummings, & Cicchetti, 1990) began to focus on the period beyond infancy and created links to developmental psychopathology.

Attachment research also proliferated because Ainsworth provided unusually generous help to many other investigators who had read her published work or heard about it at professional meetings. Some consulted her only by correspondence or by telephone, others came to Baltimore. Klaus Grossmann visited in 1973 to learn more about the Strange Situation and home observation strategies. Together with his wife, Karin Grossmann, and many of their students he subsequently replicated many aspects of the Baltimore study in Germany, but then extended the study of attachment into young adulthood. Others who regularly consulted Ainsworth were Joan Stevenson-Hinde in England who was interested in the relation of attachment to temperament and Avi Sagi in Israel who studied attachment in kibbutzim. In the late 1970s, Philip Shaver sought Ainsworth's advice while developing a self-report inventory he had designed with Cindy Hazan, and that was designed to capture adult attachment styles inspired by descriptions of secure, avoidant and ambivalent infant attachment patterns in the Strange Situation. Their measure brought attachment theory into social psychology.

Active Retirement

After reluctantly retiring as Professor Emeritus in 1984 at the required age of 70, Ainsworth remained professionally active until 1992. During this period, she became highly engaged in workshops of the Attachment Group (headed by Mark Greenberg) of the MacArthur Research Network on Early Childhood Transitions, and collaborated in the development of a coding system appropriate for separation-reunion procedures for children over 2 years of age (Cassidy, Marvin & the MacArthur Attachment Group, 1991). Her greatest enjoyment, however, came from opportunities to return to hands-on involvement in research which her growing administrative duties—including election as President of the Society for Research in Child Development—had increasingly precluded. She helped many current and former students with coding of Strange Situations videotapes and gave detailed and thoughtful advice when they consulted her about new measures. She also became highly involved in both learning and teaching the painstaking analytic procedures developed for the Adult Attachment Interview (AAI) by Mary Main and her colleagues. With one of her graduate students, Carolyn Eichberg, she co-authored her last empirical study linking maternal AAIs with the Strange Situation (Ainsworth & Eichberg, 1991). Last, but not least, she proposed extensions of attachment theory to friendship, mentor and spousal relationships (Ainsworth, 1991).

To Ainsworth's chagrin, she did not have biological children. Instead, she repeatedly referred to her former students as her academic family (Ainsworth, 1982). In an interview (Ainsworth & Marvin, 1995), she noted that: "The most extraordinary thing in my life has been seeing so many people become interested in the concept of attachment and dedicating themselves to developing it further....I think of them as my extended family." When a series of strokes began to interfere with her professional life during the 1990s, a former student and thereafter life-long friend Bob Marvin, together with his wife Cheri, acted as her primary caregiver until her death in 1998, but she also cherished continued links by visit, letter, and telephone with many other members of her extended family from across the globe.

Courage, Criticism and Acclaim

An account of Ainsworth's contributions would not be complete without discussing her intellectual courage. Whereas psychologists are enjoined to examine phenomena dispassionately, this is difficult when the focus is on attachment. Because it touches so closely on personal experience, it is a topic that arouses deep emotions. Findings that upset previous notions about parent-child relationships—even if well supported—were therefore not easy to present and publish, and were quite often received with hostility or even ridicule by established figures in the field. In public, at meetings and during her lectures in university classes, Ainsworth consistently responded to criticisms, even attacks on her work, with astonishing equanimity and grace. In private, she could show her impatience,

irritation, frustration and sometimes hurt when the negative comments came from individuals who had not read her work (or Bowlby's) carefully, and who attributed ideas to her which she did not hold. At one point she wrote,

"The almost immediate popularity of the concept of attachment as a basis for research testifies to its filling a need long felt by students of early social development, and yet many who have appealed to its authority have misunderstood it and, I believe, misused it. Attachment theory is part of a new paradigm (Kuhn, 1962) that is not readily assimilated . . . Consequently contemporary literature on attachment is chaotic and controversy is active about points that I would consider to be phantom issues" (Ainsworth, 1977, pp. 49-50).

Ainsworth wrote a number of articles and gave many talks attempting to put what she called phantom issues to rest. Many of these turned either on interpretations of the Strange Situation or on maternal responsiveness to crying. Her method of identifying relationship patterns rather than counting behavior frequencies was considered to be problematic by some. Terminology was a problem for others. Ainsworth was frequently asked to dispense with value-laden "nonscientific" descriptions of maternal behavior such as "tender, careful" versus "inept" holding. Instead of "sensitive responsiveness" colleagues suggested "contingent responsiveness" which they considered to be a more objective label. She listened to questions and doubts, replied politely, and performed additional analyses of her own where she felt comments to be helpful, but she persevered.

Initially, journal articles proved difficult to publish, hence some of her important work has appeared in the form of book chapters. That attachment research was still highly controversial in the late 1970 is illustrated by the fate of her presidential address at the plenary session of the biennial meetings of the Society for Research in Child Development in 1977. The written version of her speech (a summary of her work) was rejected by reviewers of the society's journal. It therefore appeared in 1982, in a book honoring John Bowlby. Ainsworth saw to it, however, that all subsequent SRCD presidents would have their addresses printed in Child Development without peer review.

The tide turned as further studies, particularly long-term longitudinal and crosscultural studies, replicated and supported much of Ainsworth's work. Some of the earlier controversies abated and the originality of her work began to be more widely appreciated. By the mid-1980s she became the recipient of major awards, including the G. Stanley Hall Award from Division 7 (Developmental Psychology) of the American Psychological Association in 1984. In 1985, the Society for Research in Child Development honored her with its Award for Distinguished Contributions to Child Development. Many other awards followed. She was especially pleased to be the first recipient of the newly established Mentoring Award of the APA's Division of Developmental Psychology. The culmination was the APA Gold Medal Award for Lifetime Achievements in the Science of Psychology in 1998 some months before her death. The citation for this award reads:

Mary Ainsworth stands out as one of the major figures of the 20th century in the study of the relations between young children and their caregivers. Her work on the nature and development of human security, her exquisite naturalistic observations of attachment-caregiving interactions, her conceptual analyses of attachment, exploration and self-reliance, and her contributions to methodology of infant assessment, are cornerstones of modern attachment theory and research. The patterns of attachment that she identified have proven robust in research across diverse cultures and across the human life span. Her contributions to developmental psychology, developmental psychopathology, and ultimately to clinical psychology, as well as her teaching, colleagueship, and grace, are the secure base from which future generations of students can explore. (E. Waters, 1998, p. 869).

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