

John Bowlby: Rediscovering a systems scientist

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It seems to go without saying that John Bowlby's work in attachment theory has created controversy over the years. And though it has been expanded upon, interpreted, and rebutted, it has not gone away. Even today, his ideas are still found in materials regarding child development from the World Health Organization.

Bowlby finds himself in good company. He saw important connections that explained long-standing problems in new ways, and then struggled to explain those ideas. Bowlby can easily be labeled a *systems thinker*; though neither he nor others seemed to formally label him as such. He considered and incorporated ideas across a wide variety of disciplines as he developed his own theories. Specifically, he used aspects of control theory (cybernetics) as part of his theory of attachment. His approach, though, is more generally systemic, making sense of the patterns of organization that he perceived in the world.

For decades, Bowlby worked and regularly met with some of the most brilliant thinkers of his time. Though he was a psychoanalyst in a child guidance clinic, he drew from theorists in learning, ethology, communications, psychology, sociology, cybernetics, general systems, and so on. He saw and used the connections, but also strived to make his theories accessible to practitioners and policy makers. Bowlby justifies his own work as an extension of Freud's continuing development of psychoanalytic theory; both were working to further the science of the human psyche and its implications for social functioning. Each step of his work, though, seemed to create more questions about the foundations of prevailing theories, which caused great conflicts with his psychoanalytic colleagues. It is no wonder that many people are still working to understand him.

This paper will attempt to reconstruct some of the historical development of Bowlby's work, and to make more explicit the connections with thinkers and theorists not often found in the child development literature. Especially, this will focus on systems thinkers who may have influenced Bowlby, if not directly through their theories, very possibly through their approaches. It will make the case that in order to truly understand Bowlby's ideas you need also to understand this way of thinking.

A Brief Chronology

Much of the history of Bowlby's life and work has been well documented previously. For purposes of reference, though, a very brief summary is merited.

John Bowlby began his professional career at the age of 21 when, as a disenchanted medical student, he took a job at school for what were termed "maladjusted children." While there, he conducted a study of some of the youths in residence. The findings were published in a paper titled *Forty-Four Juvenile Thieves: Their Character and Home-Life* (Bowlby, 1944). In his study, "he found that seventeen of the

group had suffered an early prolonged, or permanent, separation from their mother, or permanent mother substitute, during the first five years of their life – as compared with only two in the control group” (Bowlby, R., 2004, p. 13).

Bowlby went on to complete medical school at the University College Hospital in London (Tanner and Inhelder, 1971), and then for training in psychoanalysis at the British Psychoanalytic Institute. Though the general orientation was essentially Freudian, it was colored by the influence and interpretations of Melanie Klein, who helped to supervise Bowlby’s training.

During the first four days of September, 1939, the official evacuation of British cities began, as Britain prepared to enter WWII. Estimates vary widely, but between 1.5 million and 3 million people were moved in those four days from cities and towns to the countryside. It is clear that the majority were school children who were evacuated without their parents, and housed with families as space was available. Bowlby apparently became aware of the preparations in advance, and wrote a letter, along with Emanuel Miller and D. W. Winnicott, urging the planners involved not to allow children under five to be evacuated without their mothers.

During World War II, Bowlby worked for five years as an army psychiatrist, primarily as part of an officer-selection program. He also did post-graduate work in psychology, and was trained in research methods (Tanner & Inhelder, 1971) and, during that time, met members of the Tavistock Institute of Medical Psychiatry. Following the war, he took a position at the Tavistock Clinic, as the head of the Child Guidance Department.

In 1949, Bowlby was asked by the World Health Organization (WHO) to develop a report “on the psychiatric needs of the many homeless children who had been orphaned because of the Second World War” (Bowlby, R., 2004, pp. 13-14). The research that Bowlby used was based not only on his own previous studies, but also through collaboration with a new colleague, James Robertson, which began in 1948. In addition, Mary Ainsworth joined Tavistock in 1950 in order to assist Bowlby with his research.

The report was titled *Maternal Care and Mental Health* (Bowlby, 1952). It became one of two papers around which were formed the Meetings of the World Health Organization Study Group on the Psychobiological Development of the Child. A series of four meetings was held in Geneva, Switzerland, for one week each year from 1953-1956, which are chronicled in a four-volume set of proceedings titled *Discussions on Child Development* (Tanner & Inhelder, 1971).

From 1957-58, Bowlby spent a year as a fellow at the Center for Advanced Study in the Behavioral Sciences (CASBS) at Stanford, in the US. It was during that trip that he also met Harry Harlow. By 1958, Bowlby had formulated the foundation for what would become Attachment Theory. He published three papers, now considered classics, which were presented to the British Psychoanalytic Society in London: *The Nature of the Child’s Tie to His Mother* (1958), *Separation Anxiety* (1959), and *Grief and Mourning in Infancy and Early Childhood* (1960) (Bretherton, 1992). (Two additional, unpublished papers, helped to complete the initial research.)

Bowlby continued to find value in meeting with diverse thinkers and researchers. During the 1960s, he hosted the Tavistock Study Group, inviting both human infant researchers and animal researchers, including Harry Harlow, to a series of meetings (Bretherton, 1992).

Bowlby's description of Attachment Theory is set forth in a three-volume series called *Attachment and Loss*, based on those three classic papers. The first volume is *Attachment* (first published in 1969, then revised in 1983). The second is *Separation: Anxiety and Anger* (1973), and the third, *Loss: Sadness and Depression* (1980).

It is clear from reading Bowlby's works that he never lost his sense about the importance of the development of a secure attachment between a child and a maternal figure, especially at critical, early stages. He also remained certain about the potential impact on a child of losing that significant figure. His feelings about those issues were, in part, tied to his own childhood experience, and therefore ran quite deep.

According to his son, Sir Richard Bowlby, John Bowlby was raised in what was at the time, a fairly typical arrangement for his circumstances (personal interview, August 31, 2009). The children were taken care of by a nanny. In this case, John was the fourth child, and the older three children shared a senior nanny. When John was born an additional nursemaid, named Minnie, was hired. Since the children only saw their mother for an hour or so each day, around tea time, Minnie became John's maternal figure. She left for a different job when John was four – a very critical time in his own development. Even more problematic, though, was the fact that none of the other children experienced John's sense of loss, so he bore that pain on his own. This experience apparently sensitized him to the importance of these early relationships for the rest of his life. Later, Bowlby's close friend and co-author, Evan Durbin drowned while trying save his daughter, creating another deep and influential loss.

Systems and Tavistock

The Tavistock Institute of Medical Psychiatry had been founded in 1920 by a group of doctors concerned with neurosis in World War I. They had come to recognize that neurosis was not just a condition of the war that terminated at its end, but was something more pervasive in society. They founded Tavistock in order to continue their research and treatment. At the outset, it was multidisciplinary, being comprised of "general physicians and neurologists, as well as psychiatrists, and one or two multiply-trained individuals who combined psychology and anthropology with medicine" (<http://www.moderntimesworkplace.com/archives/archives.html>, par. 4).

In 1941, the British military was faced with a dilemma. According to Trist and Murray (<http://www.moderntimesworkplace.com/archives/archives.html>), the Royal Air Force had repelled the German Army by winning the Battle of Britain, but had little effective land forces with which to continue the war. Because of a long-standing relationship with a senior British commander, a group of psychiatrists from Tavistock was able to join the army in order to help with its utilization of human resources. Their work included the officer selection program with which Bowlby was involved.

Towards the end of the war, the members of Tavistock elected a new interim planning committee, which included Eric Trist. (Trist was a social psychologist, which put him out of the mainstream with his British psychology colleagues. He had been working on closed head injuries of soldiers in a hospital during the war when he was asked to join the group of Tavistock psychiatrists in the military.) Seeing the impending development of a National Health Service (NHS), they formed two separate entities. The Tavistock Clinic would become part of the NHS and be funded as a medical service. The Tavistock Institute of Human Relations was created in order to address the study of wider social problems, not considered to be a part of the mental health area. (The Institute was initially funded by the Rockefeller Foundation, from the US.) It was at this time, in 1946, that Bowlby joined the Tavistock Clinic.

This was a time of great turmoil for Tavistock, but a unifying element which helped to provide direction was the value that object relations theory had shown during the war. It was decided that all fellows of Tavistock would undergo psychoanalysis, if they had not already done so, through the British Psycho-Analytical Society (<http://www.moderntimesworkplace.com/archives/archives.html>). In the composition of Tavistock, Bowlby continued his path of being steeped in psychoanalysis, but also involved in the context of the surrounding social issues.

For professionals involved in organizational development, and similar arenas of practice, Tavistock has always been most closely associated with the work of Eric Trist and Fred Emery in developing Socio-Technical Systems. There was also significant overlap with the work of systems theorists and practitioners coming out of the Operations (a.k.a. Operational) Research (OR) field, both in the UK and the US. OR applied systems engineering principles to the management of human resources during WWII, and underpinned the early work of systems theorists such as C. West Churchman, Russ Ackoff, Peter Checkland, and Stafford Beer. Whether any of these people, other than Trist, directly influenced Bowlby is not clear from his own writings. (Bowlby, 1952, gives Trist special acknowledgment in his introduction to *Maternal Care and Mental Health*.) What does seem clear is that there was regular and ongoing contact between the members of Tavistock even after the separation of the clinic from the institute.

Kurt Lewin was an early and significant influence on Trist, as well as on Bowlby and the British psychoanalysts. In his autobiographical reflections, Trist notes that his enthusiasm for a paper that Lewin had written actually created problems for him, due a perceived lack of distance and objectivity on his part. None-the-less, he remembered the day that he got to meet Lewin, while he was a student at Cambridge, as one of the high points of his life (<http://www.moderntimesworkplace.com/archives/ericbio/ericbiobody/ericbiobody.html>). Trist and Lewin remained in contact after Lewin moved to the US. Lewin used the same conceptual approach as the Tavistock Institute, that of bringing psychotherapy to organizations, to found the National Training Labs (NTL) Institute.

For his part, Bowlby described Lewin's influence during a meeting of the WHO Study Group. In response to an issue in debate, Bowlby explains his view that "present behavior is a result of the ongoing dynamic assimilation and restructuring of the past in terms of the present. Actually this is a view which many English psychoanalysts have emphasized for ten years or more as a result of being influenced by Lewin's

field theory.” Even more, “most of the analysts associated with the Tavistock Clinic and Institute share this view quite explicitly” (Tanner & Inhelder, 1971, p. 39).

As noted earlier, it was while at Tavistock that Bowlby was commissioned by the WHO to do “a study of the needs of homeless children ‘who are orphaned or separated from their families for other reasons and need care in foster homes, institutions or other types of group care’ “ (Bowlby, 1952, p. 6). The study was to be restricted to children who were homeless in their own countries of origin, to separate them from children displaced by war or other tragedies. It was also later clarified to focus on mental health issues.

The Meetings of the World Health Organization Study Group on the Psychobiological Development of the Child began in 1953. They were chaired by Frank Fremont-Smith, based on his work as part of the Josiah Macy Junior Foundation. According to the history reported on the website of the American Society for Cybernetics (<http://www.asc-cybernetics.org/foundations/history2.htm#MacySum>), Fremont-Smith’s mentor at the Macy Foundation was Lawrence K. Frank, considered to be “the godfather of the American child development field.” Frank had been intrigued since the 1930s with the concept of homeostasis, based on a 1929 paper by Walter Cannon, and was close friends with Margaret Mead.

In 1942, Fremont-Smith had organized a meeting on the topic of cerebral inhibition. The invited attendees included Lawrence Frank, Margaret Mead, Gregory Bateson, Warren McCulloch, Arturo Rosenblueth and Lawrence Kubie. These formed the core group of what became the first of the Macy Conferences.

The first Macy Foundation conference, which Fremont-Smith also organized, was called *Feedback Mechanisms and Circular Causal Systems in Biological and Social Systems*. Between 1946 and 1953, ten meetings were held. In addition to the participants noted above, participants included Ross Ashby, Julian Bigelow, Heinz von Foerster, Ralph Gerard, Molly Harrower, Paul Lazarsfeld, Kurt Lewin, John von Neumann, Walter Pitts, Leonard Savage and Norbert Wiener, and guests including Erik Erikson, Claude Shannon and Talcott Parsons.

These conferences are usually considered to have created the origins of cybernetics, and included a number of people who became part of the general systems theorists (to be described later.) The influence of these meetings was not restricted to the US, though.

According to Bretherton (1992), Bowlby’s concept of internal working models of the environment by which animals and infants learn to navigate the world can be traced back to Kenneth Craik (by way of the writings of John Young). John Bates, a neurosurgeon and a close colleague of Craik’s in WWII, helped to organize what became known as the Ratio Club in London, which met from 1949 to 1955 (<http://www.rutherfordjournal.org/article020101.html>). Members included Ross Ashby and William Grey Walter, and guests such as Warren McCulloch, all of whom were part of the Macy Conferences noted above. This club, apparently, formed the foundation for Britain’s own version of cybernetics (which Bowlby describes as control theory).

The WHO Study Group

When the WHO Study Group began in 1953, there was a tremendous background of knowledge and prior relations being brought in, which is not noted in the proceedings or other writings. The members for the first meeting, including areas of specialty, were:

- John Bowlby, Psychoanalysis
- Frank Fremont-Smith, Research Promotion
- G. R. Hargreaves, Psychiatry
- Bärbel Inhelder, Psychology
- Konrad Lorenz, Ethology
- Margaret Mead, Cultural Anthropology
- K. A. Melin, Electrophysiology
- Marcel Monnier, Electrophysiology
- Jean Piaget, Psychology
- A. Rémond, Electrophysiology
- R. R. Struthers, Research Promotion
- J. M. Tanner, Human Biology
- William Grey Walter, Electrophysiology
- René Zazzo, Psychology

In addition, three guests were included in this first meeting: J. C. Carothers, Psychiatry; E. E. Krapf, Psychiatry; and, Charles Odier, Psychoanalysis. In the third and fourth meetings, Erik Erikson was included, and in the fourth meeting only, Ludwig von Bertalanffy (Tanner & Inhelder, 1971).

Freemont-Smith acted as the chairman for the meetings, based on his previous work with the Macy Foundation in hosting interdisciplinary conferences. Mead, Grey Walter, and Erikson had all been involved to various degrees with similar meetings and conferences before this, as noted above.

Despite the fact that Bowlby's report, *Maternal Care and Mental Health* (1952), was one of two papers which helped to instigate the WHO Study Group (and the other paper, interestingly, being on psychiatric aspects of juvenile delinquency), the meetings in the end were very broadly about child development. Each meeting was preceded by papers being sent between all participants, and each meeting begun with presentations of papers to introduce ideas for discussion. The first meeting, for instance, included presentations on physical and physiological development of children, the behavior of newborn anencephalics, electroencephalographic development of children, and cross-cultural approaches to child development.

During the four years of meetings, Bowlby made only two formal presentations of his own material. In the first meeting, he focused on the role of instinct in psychoanalysis. In the second, he showed the film, made with James Robertson, titled *A Two Year Old Goes to Hospital* (Robertson, 1952).

Bowlby explains his choice of focus for the first meeting as being because "instinct is the central core of psychoanalysis, and...the study of instinct distinguishes psychoanalysis from other branches of

psychology” (Tanner & Inhelder, 1971, Vol. 1, p. 182). From the beginning, though, it is evident that Bowlby is working on the development of his theories. In his introduction of himself he states that “the mother-child relationship is manifestly an example of instinct, in the etiological meaning of the word, and it is also at the centre of psychoanalyses” (p. 25-27). Rather than seeing his work as a departure from psychoanalysis, though, he describes it as only an extension of what Freud had begun. As he explains:

Freud himself did not feel very satisfied with his work in this field and in 1915 remarked that it would probably prove necessary for psychologists to look to biology for an adequate theory of instinct. As it happens, in the same paper he outlined a theory of instinct almost identical in principle with that of modern ethology (p. 182).

At some point, Bowlby had run across a paper by Konrad Lorenz regarding imprinting, which became a major influence on him (Bretherton, 1992). According to Richard Bowlby (2004), it was a red-letter day for his father when he actually got to meet Lorenz in 1951. According to Mayhew (2006), though, Bowlby had earlier incorporated ideas from Solly Zuckerman, a zoologist, in the book *Personal Aggressiveness and War* (1939), co-authored with Evan Durbin.

The importance of this work in ethology appears to be two-fold. First, as noted, Bowlby seemed to believe that he was only continuing work to which Freud had at least pointed earlier. Second, he felt a strong need to connect psychoanalysis with science more generally. As he explained, “there can be no doubt that if psychoanalysis is to attain full status as one of the behavioural sciences, it must add to its traditional method the tried methods of the natural sciences” (Bowlby, 1983, p. 9). It is no wonder, then, that he believed it to be essential to observe children directly in order to gather data about attachment and early relationships. Again, though, Bowlby seemed to believe that he was only continuing work for which Freud had laid the foundation. As he states:

For Freud the psychical energy model was an attempt to conceptualise the data of psychology in terms analogous to those of the physics and chemistry at the time he began his work, and thus was thought to have the great virtue of linking psychology to science proper (p. 19).

As an aside, it seems possible that Bowlby had no real idea of the chasm into which his work would take him. He believed in the value of science and its approaches but that created extremely high standards of evidence for his theories. While medicine draws on science, in practice positive outcomes tend to justify themselves. As long as there is evidence that a treatment does more good than harm it is often used until replaced by something better. Freud’s ideas had challenged and revolutionized theories from many fields. It may be that Bowlby found himself raising deep, foundational issues with colleagues interested only in theories of practice, except when he met with other systems thinkers.

The links between psychic energy and instinct create yet another bridge which becomes critical in Bowlby’s own theory, through the inclusion of control theory (also known as cybernetics.) While the most explicit connections in the WHO meetings would appear to be through members such as William Grey Walter, who applied his work in neurophysiology to the development of early robotics, knowledge about the basic tenets of cybernetics seemed to be pervasive within the group. Piaget, in fact,

connected cybernetics with his work in cognitive development in his personal introduction at the first meeting:

Although perhaps no neurological contact is possible at present, except for attempts – such as those of Pitts and McCulloch – to apply logical structures to neuron structures, I think nevertheless that now we can go further in developing the comparison between the various cybernetic models and the activity of intelligence (Tanner & Inhelder, 1971, Vol. 1, pp. 32-33).

With respect to instinct, then, one strong theme which ran through all four years of the meetings investigated connections between animal studies of instinct, focusing on concepts such as Innate Releasing Mechanisms (IRMs), the similarities and differences between humans and animals, and the testing, experiments, and early models of human neurology. As Bretherton (1992) recounts, these ideas made their way into Bowlby's first seminal paper in which "Bowlby introduced ethological concepts, such as sign stimuli or social releasers that 'cause' specific responses to be activated and shut off or terminated" (p. 768). They also created a great deal of controversy when he presented the paper to the British Psychoanalytic Society. While for Bowlby this reinterpretation of instinct both further developed Freud's theories and provided a tie back to other areas of science, it clearly separated him from traditional psychoanalysts.

Bowlby's second presentation, his showing of the film *A Two Year Old Goes to Hospital* (Robertson, 1952), was apparently meant to be a demonstration of using direct observation of attachment behavior, as opposed to the retrospective clinical reconstruction typically done in psychoanalysis. As he explained in his introduction:

We selected this child 'at random'. The reason we did it this way was because my colleague, Robertson, and I have so frequently been accused of exaggerating the emotional disturbance of these relatively minor social happenings: eight days in hospital – nothing very much – no real importance! And so we said, 'All right, we'll make a film of the next child to come in who conforms to certain criteria' (Tanner & Inhelder, 1971, Vol. 2, p. 213).

The reaction that he got from his esteemed colleagues was undoubtedly not what he had wanted or hoped. One response from Grey Walter was, in part:

It seems to me, looking at the film, that the time when a child shows most stress is when the statistics of the situation are not acceptable to her... It is the fundamental uncertainty of the situation which produces stress rather than the fact that her desire to see her mother was delayed (Tanner & Inhelder, 1971, Vol. 2, p. 213).

Even more damning was a comment by Zazzo:

The film was most interesting and is directly related to our subject – as was shown by the discussions we have been having – but when it is a question of proving to skeptics that the child who is separated from the mother shows very serious reactions, I do not think it is very convincing (Tanner & Inhelder, 1971, Vol. 2, p. 217).

Bowlby's response, a short time later in the discussion, is telling. "How we evaluate the suffering may be controversial but it is clear that this child suffers in the ordinary human sense of the word. The film was not published to convince skeptics – one could never do that – but to draw attention to a problem" (Tanner & Inhelder, 1971, Vol. 2, p. 223). He goes on, then, to explain that he has no clear way of knowing which or how many children are likely to be traumatized by an experience of separation. He sees it, though, as similar to a public health issue, in that conditions known to affect even a percentage of a given population need to be addressed. Hargreaves reinforces this notion, challenging what he apparently sees as poor medical practices, admitting children to hospitals in many cases unnecessarily. Mead challenges another aspect, through the potential of increasing the tolerance for separation by expanding the number of people that the child learns to trust. Bowlby does not disagree, but offers a caution: "All sorts of arrangements whereby grandmothers, aunts and uncles are brought in as aids are obviously desirable, but we have got to be careful about the extent to which we do it" (p. 230).

It could appear from these excerpts as if Bowlby's work received little support from, or had no real impact on, the other participants in the WHO Study Group. Based on exchanges and discussions throughout the meetings, though, that was not the case. Even though his theories were still in development, they continued to pique the interests and concerns of his colleagues.

In the third meeting of the study group (the first in which Erikson participated) Erikson shows exceptional support for Bowlby's ideas. In one of his most direct statements, he summarizes it this way:

The terms basic trust and basic mistrust summarize much that has been emphasized recently in psychiatry and in public health, especially by Doctor Bowlby... It is obviously difficult to know what mechanisms are at work at a time which is one of relative lack of differentiation between outer and inner experience, between body and mother. But this seems to be the stage to which our sickest candidates for identity diffusion regress – as Bowlby pointed out yesterday (Tanner & Inhelder, 1971, Vol. 3, p. 170).

He also goes to great lengths to show the alignment between his theory of psychosocial development and Bowlby's ideas. In this remark, Erikson expands on the concept of attachment as it progresses through development.

The baby will certainly feel secure only with one or two persons, especially at critical times. Each of the stages which I outlined coincides with an extension of the social radius of interaction: from the family to the known 'world'. Therefore, with each crisis, security has to be re-established within a wider radius, from a mother or maternal person to that of parental persons in general, which would include two polarized people like father and mother, to the basic family, to the neighborhood, to the peer-group, to the apprenticeship organization and so on. Each of the early securities is basic for the later one, but it has first to find its own establishment in its own social radius, and in that sense I believe the security problem continues all the way through and is not added at any particular time (Tanner & Inhelder, 1971, Vol. 3, p. 212).

And as he specifically addresses the issues of security and maternal loss:

I mean by [the term *unipolarity*] the great and as yet undisturbed security of the baby in his complete dependence on the maternal environment, which will be disturbed only if he prematurely feels the loss of and thus the dependence on the mother... That is why I contrast premature differentiation of self, a premature sense of being separate, with a sense of unipolarity. Gradually, however, he does differentiate himself, for any number of reasons, which culminate in a sense of autonomy. During this process he has to establish with his mother what I call a *bipolarity*, because once he has lost the feeling that he is one with her, there have to be two that interplay in a way of mutuality. And his security lies in his ability to interplay with her (Tanner & Inhelder, 1971, Vol. 3, p. 213).

The fourth meeting of the WHO Study Group was prefaced with the circulation of a paper by Piaget, and with responses to that paper by seven of the participants, including both Bowlby and Bertalanffy (as a guest at the final meeting.) Piaget opens his paper by noting that the group did not simply confine their discussions to the traditional disciplines within development (hereditary, physiological environment and social environment.) Rather, they worked to look for interactions between the three areas, and to seek a common language which might transcend them. What emerged for Piaget was a fourth factor common to all, which was equilibrium.

Even beyond the search for a common language (a basic tenant of General System Theory, which Bertalanffy addresses later) it is in this fourth meeting that it becomes most apparent that most, if not all, of the participants were well aware of systems concepts, if not explicitly by that name. Lorenz specifically notes that he had never heard of General System Theory before reading Bertalanffy's comments to Piaget's paper. Yet Lorenz explains eloquently in his own reply that "All organisms are open systems and all of them live only by achieving a regulative equilibration between their inner processes and the requirements of their outer environment" (Tanner & Inhelder, 1971, Vol. 4, p. 29). In addition, he states: "Modern physiology of perception in particular and neurophysiology in general have discovered processes which are not only comparable, but essentially identical with those known to cybernetics" (pp. 29-30).

In addition to referencing the works of Ashby and Wiener, Grey Walter was obviously also quite fluent in these concepts. As he states in his reply to Piaget:

Artificial goal-seeking mechanisms are novel perhaps, but the essence of cybernetics is to define and analyze the factors in 'purposeful' behavior which are common to all self-controlled systems, and to suggest tactics and strategy for the study of complex interacting systems – which are beyond the range of classical scientific methods and propositional logic (Tanner & Inhelder, 1971, Vol. 4, pp. 54-55).

It is also in his reply to Piaget that Bowlby provides what may be his clearest articulation of his understanding of systems.

It is plain that the structure and activity of the organism as a whole cannot be understood simply in terms of structure and activities of its parts and that the process of organization of the separate activities into a whole must have laws of its own and that, in so far as the organism

persists and develops, there must be an equilibrium of forces (Tanner & Inhelder, 1971, Vol. 4, p. 45).

Piaget later references this comment during the discussion. As he explains at some length:

I had understood that Bowlby does not consider, as did Freud in certain passages, that we are fixed in the past and that there is necessarily regression into the unconscious during the utilization of this past, but rather that the past is continually reorganized according to present needs and present structures. But though I had already understood this point, I did not know how to reconcile the Freudian stages with the stages of cognitive development in the child. Now, Bowlby's reply contains an idea which seems to me to be very clear and fertile. He says that an affective reaction in the child – for example, the relations between the child and his mother – is the product of a group of reactions which are at first isolated or uncoordinated between themselves, such as suckling or smiling or imitating, but later becomes more and more closely coordinated until they finally constitute a whole. Thus Bowlby suggests...they are instead stages which depend chiefly, if I have understood Bowlby properly, on the progressions in this development from isolated elements into a coordinated whole (Tanner & Inhelder, 1971, Vol. 4, p. 91).

In his response to Piaget's paper, Bertalanffy begins by addressing the issue of a common language, and prefaces his later introduction of General System Theory (GST). He links his work to the cybernetic concepts they have been discussing by explaining that he and Ashby both began with the same mathematical model, and that their work is in fact complimentary. He proceeds, then, to correct Piaget's understanding of equilibrium (which had been based in physics) as applied to organisms as open systems, in which it must be a dynamic equilibrium. In the discussion during the meeting, he explains some of the complications of the language being used, including those with Freud's theories:

When you speak of 'equilibrium', 'homeostasis', 'open system', and so forth, it is always a physical metaphor which is used. Freud, in his 'dammed up libido', and Lorenz's concept that instinctual energy is built up and discharged if a certain level is passed (even without stimulus as in *in vacuo* behavior), both use the same hydrostatic model... Unfortunately, within the structure of our language and thinking, we can hardly do otherwise, and can only try to make the best of it (Tanner & Inhelder, 1971, Vol. 4, p. 113).

In the final discussion of this last meeting, Bertalanffy provides the participants with an introduction to GST. Though brief, it is obvious that the basic concepts were well formulated at that point, and that Bowlby – along with the others – got to hear the concepts as explained by Bertalanffy himself. Bertalanffy's presentation included his explanation that scientific theories were, in fact, conceptual models, only one of which was General System Theory.

During the discussion about the understanding and applications of these ideas, there is an aside from Erikson regarding the Freudian notion of pleasure-seeking. As he explains, there was a great deal more influence from economic theories of the 19th century on Freud than most people realized. As he says:

You find theories in the classical economics of the last century which already speak of humans in the aggregate as pleasure-and-pain machines, in terms of gains and losses. I personally would say that nothing has done more harm in psychoanalysis and in its application than the *Weltanschauung*, one might almost say the ethics, which grew out of this 'economic' trend of thinking. Thus, the ego has been treated in psychoanalysis as a kind of merchandising agency which bargains for pleasure and self-expression (Tanner & Inhelder, 1971, Vol. 4, p. 166).

Center for Advanced Study in the Behavioral Sciences

The Center for Advanced Study in the Behavioral Sciences (CASBS) was founded in 1954 at Stanford University in California, using funds from the Ford Foundation. Four of the fellows of the center in that first year were Kenneth Boulding, Ralph Gerard, Anatol Rapoport, and Ludwig von Bertalanffy. In fact, all but Bertalanffy had been helped to found the center itself. It was over lunch there one day that they conceived of the Society for the Advancement of General Systems Theory, which Bertalanffy introduced at the fourth WHO Study Group meeting. That society became formalized in 1956 as the Society for General Systems Research (SGSR), under the larger umbrella of the American Association for the Advancement of Science. (In 1988, the SGSR was renamed the International Society for the Systems Sciences, which it remains today.) Nineteen fifty-four, of course, was the second meeting of the WHO Study Group.

Following the final meeting of the WHO Study Group in 1957, Bowlby spent a year as a fellow at the CASBS; from the fall of 1957 through the spring of 1958. While there, he finalized (in the first case) and drafted (in the latter cases) what he describes as three long chapters for journal publication: *The Nature of the Child's Tie to his Mother; Separation Anxiety*; and, *Grief and Mourning in Infancy* (Bowlby, 1958a, Memoranda Evaluating the 1957-58 Fellowship Year at the Center). It was also while at the center that he wrote the pamphlet, *Can I Leave My Baby?*

Since CASBS fellowships lasted for only a year, Bowlby was not there at the time with Bertalanffy and the others. According to his letters, though, one of his closest friends during that time became David Easton, a political scientist (at that time in Chicago) who was approaching political systems from the perspective of General System Theory. He also found himself closely aligned with Frank Newman, a lawyer interested in law as a socio-political instrument, and with shared interests in the regulation of conflict. Also during the year, Konrad Lorenz and Gregory Bateson both provided guest lectures. As he describes in a letter dated October 30th, 1957, "The most original work I have run into is by Gregory Bateson and his research group at the local V.A. mental hospital. They have a very interesting way of conceptualizing and recording social interaction -- taking account of gesture, tone of voice as well as verbal contact -- and are applying it to the study of parent-child interaction."

Meeting Harry Harlow

According to van der Horst, LeRoy, and van der Veer (2008), it was Robert Hinde who introduced Bowlby to Harry Harlow, and they began their relationship by correspondence in August, 1957, just before Bowlby left to begin his year at the CASBS. During his time at the center he continued to correspond

with Harlow, and also attended a conference in Monterey, CA, where he got to meet Harlow in person. After completing his time as a fellow, Bowlby visited Harlow at the University of Wisconsin in Madison.

After returning to the UK, Bowlby initiated a series of four meetings (known both as the Ciba symposia and the Tavistock study group), following the model of the WHO Study Group. These were sponsored by the Ciba foundation and held in London every two years, between 1959 and 1965 (van der Horst, et al., 2008). Harlow was reportedly an important contributor and participant in the three meetings that he was able to attend.

This paper by van der Horst, et al. (2008) was apparently written to counter earlier arguments by another author. As they state it, "Our findings make abundantly clear that Singer (1975) was completely wrong in asserting that Harlow's findings had no impact on Bowlby's theory whatsoever" (p. 385). In some respects, though, they overstate their own case, as in claiming that, "In developing a control systems approach to attachment behavior, Bowlby (1982, p. 239) applied Harlow's (Harlow and Harlow 1965) views on the object and social exploratory behavior of young monkeys to that of human children" (p. 385). Bowlby may very well have aligned with Harlow's views, but as is well documented above, he was exposed to the concepts of cybernetics and control theory long before meeting Harlow.

Just based on the citations and references that Bowlby (1982) uses, though, it is clear that he drew a great deal from Harlow. Undoubtedly, Harlow's work provided a bridge to the scientific observation and study of attachment that Bowlby had long sought. It also allowed for experimental research that simply could not be done in the same way with humans, but with animals that were close enough to identify specific traits and behaviors. It is equally clear that Bowlby's work has an incredibly long lineage, and that he also drew from influences such as Hinde, Piaget, Lorenz and others, just based on the same citations and references.

A Systems Scientist

In the end, Bowlby's writings still leave a good bit of mystery. It is hard to imagine conversing and exchanging ideas with more brilliant theorists and practitioners than he did over the decades of his work. And yet, he was apparently very careful and selective about the people that he directly referenced. It can only be assumed that he tried to walk that very fine line, which most other systems scientists have; that of crossing disciplinary boundaries while also trying not to alienate his traditional colleagues.

If that is the case, Bowlby was certainly in good company. As Bertalanffy explained in the WHO meeting, he had first had first introduced his idea about a general system theory in 1938. But, "I feared that my reputation as an experimentalist would be damaged if my preoccupation with such highly theoretical matters were uncovered! So nothing was published until after the war" (Tanner & Inhelder, 1971, Vol. 4, pp. 156-157). Likewise, Kenneth Boulding (noted earlier as one of the founders of the Society for General Systems Research, and also a president of the American Association for the Advancement of Science) found himself marginalized by other economists due to his wide-ranging interests (Hammond, 2003). No doubt, the reaction that Bowlby (1958b) received from the British Psychoanalytic Society to his paper, *The Nature of the Child's Tie to His Mother*, gave him reason to be cautious early on. Like

other ground-breaking theorists, though, Bowlby apparently could not be satisfied with the traditional but inadequate answers he found to the problems that he saw.

To summarize to this point, then, there can be no doubt that Bowlby was exposed to systems ideas of almost every variety. The influence of Kurt Lewin's notion of field theories he got both through his psychoanalytic training, as he explained, as well as through Lewin's influence on Eric Trist, his social psychology colleague, and through Lewin's broader influence on Tavistock, in general. In the WHO Study Group, not only did he work directly with Bertalanffy, but also with the organizers and participants of the Macy Foundation conferences, including Freemont-Smith, Mead, Grey Walter, and Erikson. As shown through the excerpts of their discussions, though, it is also apparent that cybernetic concepts, specifically, were common knowledge for theorists at that time, including Piaget, Lorenz, et al. He continued to be drawn to other systems thinkers during his time at the CASBS at Stanford (e.g. Easton and Bateson), and to cross disciplinary boundaries through the meetings of the Tavistock study group which he initiated. In effect, there is almost no way that Bowlby could have avoided knowing about systems and cybernetics, given the people with whom he was involved.

It is not only the specific theories, though, that seem to have been of importance. There was common knowledge of systems principles, and there was also widespread knowledge of Freudian theories and open skepticism about them. Bowlby obviously found himself in good company with others who not only knew Freud and his ideas quite well, but who were working to challenge and continue developing them. His dilemma was that he found himself in good company outside his traditional profession. For better or worse, that is a common and clear marking of a system scientist.

Bowlby (1982) chose to incorporate cybernetic principles, without mentioning systems concepts more generally, in his writings. Apparently a prime concern was avoiding the label of being a *vitalist*. Cybernetics (here referred to as control systems) seemed to be the answer, as he explains:

At one time to attribute purposiveness to animals or to build a psychology of human behavior on the concept of purposefulness was to declare oneself a vitalist and to be banned from the company of respectable scientists. The development of control systems of increasing sophistication, such as those that control a homing missile, has changed that. Today it is recognized that a machine incorporating feedback can be truly goal-directed (p. 41).

Simon (1996) provides a helpful distinction, from the perspective of science, between cybernetics and general system theory. As he summarizes the history of cybernetics:

The period during and after WWII saw the emergence of what Norbert Wiener dubbed "cybernetics": a combination of servomechanism theory (feedback control systems), information theory, and modern stored-program computers, all of which afford bold new insights into complexity... Feedback control systems show how a system can work towards goals and adapt to a changing environment, thereby removing the mystery from teleology. What is required is ability to recognize the goal, to detect differences between the current situation and the goal, and actions that can reduce such differences (p. 172).

In a footnote, Simon references the work of Grey Walter as an original source of the applications of cybernetics. As to GST, Simon (1996) apparently saw it as overly-ambitious:

During these postwar years, a number of proposals were advanced for the development of “general systems theory,” that, abstracting from the special properties of physical, biological, or social systems, would apply to all of them. We might feel that, while the goal is laudable, systems of these diverse kinds could hardly be expected to have any nontrivial properties in common (p. 173).

Bertalanffy was clear in his explanations at the WHO meetings that GST had not reached a place where it could explain biological phenomena with predictive, scientific accuracy, but he offered no apologies for this:

Many biological and most behavioral phenomena...are too complicated and obscure in their structure to allow for such explanation and prediction... [GST] is in a position to offer ‘explanation in principle’; but it cannot be blamed for not giving quantitative solutions for phenomena like embryonic regulation, psychobiological development, etc., where the complexity of the process and the lack of definition of the relevant parameters are prohibitive. (Tanner & Inhelder, 1971, Vol. 4, p. 71).

Bowlby sought to bring the principles of science to the study of attachment. In order to develop a credible theory, he undoubtedly felt pressure or obligation to incorporate principles that met the standards of the existing scientific communities. That was, however, different than the very broad, interdisciplinary thinking that he exhibits throughout his career. His theory was scientific, incorporating cybernetic principles. His thinking was systemic, looking to make sense of the patterns of organization that he recognized, and which he tried to explain.

Current Implications of Attachment Theory

For the purpose of simply addressing the question which initiated this research about Bowlby, it could be adequate to end it here. That would really not seem to do justice, though, to the work that he did.

Bowlby’s work began as most real scientists. He saw a problem which he did not think had an adequate answer, but about which he had an inclination. Looking for better answers required going outside the traditional confines, but achieving legitimacy of his ideas necessitated some connection to existing and accepted theories. Like Freud, Bowlby sought legitimacy through science. Because his interest was in early human development, though, he was limited both by the state of knowledge at the time, and in the ability to use scientific means, such as laboratory experimentation, for research.

As noted earlier, Bertalanffy explained that Freud’s notion of a ‘dammed up libido’ originated from a hydrostatic model of physics. Based on the theorists with whom Bowlby was in contact, it makes great sense that his attempts to update Freud’s theories included natural observation, as well as animal studies of maternal attachment and concepts from cybernetics to better refine the explanations of instinct.

From a systems perspective, the social context in which Bowlby worked is also of critical importance. Strangely, this seems to have been overlooked or simply ignored by most other writers interested in attachment theory. An important exception is Mayhew (2006) who proposes that:

Bowlby's collaboration with Evan Durbin, a little-known but important economist and political philosopher, was underpinned by a belief that social responsibility was an evolved psychological potentiality that could be actualized in the mother-child bonding process. This reflected and reinforced their democratic socialist vision. Furthermore, their work helped usher in a new technological framework for conceiving of social policy, a framework that would dominate British politics after the Second World War (p. 19).

Interestingly, the research for this paper coincided with the 70th anniversary of Operation Pied Piper. Through that effort, approximately 1.5 million British citizens were evacuated from cities to the countryside in the first four days of September, 1939, as Britain entered WWII. The majority were children, and according to at least one report "750,000 were children on their own" (http://news.bbc.co.uk/2/hi/uk_news/8229571.stm, retrieved October 31, 2009). By 1945 there were 3.5 million evacuees, still mostly children. Possibly influenced by the letter that Bowlby, Miller and Winnicott sent, children under five were to be evacuated only with a parental figure. None-the-less, many young children were separated from their parents and sent to unfamiliar locations, some of which turned out to be abusive.

All of this occurred, of course, around the time in which Bowlby was in the military, and before he joined Tavistock. Whether the evacuation figured directly into the study for which Bowlby was commissioned by the WHO, is unclear. There is a much larger social context, though, in which Bowlby's work also needs to be situated.

In March, 2001, the Catholic Church issued an official apology to "British children who were abused in church-run orphanages after being sent to Australia during and after World War II" (<http://www.independent.co.uk/news/world/australasia/catholic-church-apologises-to-uk-children-abused-during-world-war-ii-688517.html>, retrieved November 10, 2009). According to the report, "Some 10,000 British children - many of them orphaned during the war - were sent to Australia about 50 years ago in a cooperative migration effort with Britain. The policy was partly driven by Australia's postwar hunger for migrants." Then in November, 2009, a similar apology was issued by the Australian government, reportedly "one day after the British government said Prime Minister Gordon Brown would apologize for child migrant programs that sent as many as 150,000 poor British children as young as 3 to Australia, Canada and other former colonies over three and a half centuries" (<http://www.npr.org/templates/story/story.php?storyId=120441132>, November 15, 2009).

According to a web page of the Library and Archives, Canada (<http://www.collectionscanada.gc.ca/databases/home-children/index-e.html>) over 100,000 British children were sent to Canada between 1869 and the early 1930s, mostly to work as laborers on farms. Known as the Home Children, many continue to seek information about their heritage and their relatives (see <http://freepages.genealogy.rootsweb.ancestry.com/~britishhomechildren/>.) Snow (2000),

whose father was reportedly placed in a foster home at the age of four, as a ward of the Church of England Society for Providing Homes for Waifs and Strays, chronicles some of this history. (Snow's father was in foster care for 8 years, then sent to a home for boys for three years before being sent to Canada at the age of 15.) According to Snow, this was part of the British Child Emigration Scheme, in which 50 child care organizations participated in essentially exporting children as young as six to new locations.

Kohli (2003) documents in some detail the background and decision-making that led to children being sent to Canada. The conditions in many cities in Victorian England were deplorable, especially for children living on the streets. Even children who had homes were often used for hard and dangerous labor. But by many counts, the children who were deported were sent into indentured servanthood. Whether this was worse than the life they would have experienced in Britain is a matter of speculation and debate, but there was apparently no regard for issues of separation and attachment for the children.

Whether, or to what degree, this social context may have directly affected Bowlby's work is unclear. His WHO report, published as *Maternal Care and Mental Health* (1952) regarded "children who are orphaned or separated from their families for other reasons and need care in foster homes, institutions or other types of group care" (p. 6). The children and institutions included in the study were not just in the UK, but also in France, the Netherlands, Sweden, Switzerland, and the US.

Importantly, Bowlby's WHO report only correlated existing studies. It did not initiate new research. It covered, therefore, only the data that already existed.

Historically, a great deal of research has been funded by governments. Given the fact that the UK government only publically acknowledged in 2009 any problem with its long-standing practices regarding children, it would have been highly unlikely that it would have funded research about those policies and their potential harm. It is doubtful, then, that there would have been any studies for Bowlby to examine which included these social factors.

The situations which Bowlby and his colleagues may have known about or encountered through the clinic at Tavistock are also unclear. Obviously, they knew about the evacuation of children during WWII. It would not be surprising if they treated children who had been affected by that experience. Bowlby also knew about, and was concerned about, children in foster homes and institutions from his earliest professional studies. The degree to which he was aware of the emigration policies is unknown. Further research might help to shed light on all of these questions. The importance of all this, though, is the ways in which this social milieu may have impacted the acceptance of Bowlby's work.

As Bowlby reports in the WHO study (1952), he found surprising agreement in the research that the examined, despite the fact that it was done using various methods in different countries, with no intent to connect it all at the time that it was done. The core finding from all of the studies Bowlby summarizes by stating, "what is believed to be essential for mental health is that the infant and young child should experience a warm, intimate, and continuous relationship with his mother (or permanent mother-substitute) in which both find satisfaction and enjoyment" (p. 11).

It is critical to remember, though, that the emphasis of Bowlby's work was *always* on mental health, and how childhood development affected that. A key indicator of childhood trauma resulting from lack of secure attachment was the delinquency and other behavioral problems found in adolescents. When Bowlby saw the pain or fear or anxiety on the face of a small child missing her mother, he also saw the potential for severe disturbance in future relationships and behavior. Others, apparently, did not.

The most difficult aspect of Bowlby's work may have been in the translation. His emphasis is consistently on the *quality of the relationship* between and child and an attachment figure, for which there are no simple measurements. The questions and challenges about his theories seem to be mostly about the mechanics. Can I leave my baby while I go to work? How much time, what kind of contact, or what particular kinds of caregivers create adequate attachment? And so on.

The contrasts are striking, and possibly helpful in interpreting some of the controversy about Bowlby's work. He is concerned about damage to the psyches of individual children brought on by emotional trauma. He is addressing these concerns, though, to adults who have been enforcing long-standing policies of disposing of problematic children by exporting them to foreign countries. He is also addressing mothers who feel economically forced to go to work, and whose only affordable alternative for childcare is typically a group setting with minimally-adequate workers.

Especially at the level of social policy, mental health remains a contentious issue. People who experience mental health problems are still often stigmatized as weak. Programs aimed at encouraging mental health get confused with things that will simply make people happy. What Bowlby actually addressed, of course, were issues related to the adequate psychosocial development of children. Unfortunately, his work seems to have been caught between the tides of rigid thinking within professional specializations (e.g. psychoanalysts) and waves of social opinion (e.g. poor families are victims of their own lack of industry, and raise morally corrupt children who deserved to be punished if they engage in criminal activity.) Most unfortunately, the outcomes about which Bowlby was concerned seem only to have gotten worse.

Bowlby's original marker for problems was juvenile delinquency. In his paper, *Forty-Four Juvenile Thieves* (1944), he cites crime statistics from 1938 showing that of the 78,500 people found guilty of an offence, half were less than 21 years of age, and one sixth were under 14. There is no simple way to compare that data with current statistics, but according to the *World Youth Report* (2003), youth crime rose in virtually every part of the world (with the exception of the US) during the 1990s. "In England and Wales...approximately 360 of every 100,000 youths aged 14-16 years were 'convicted or cautioned by the police' for violent crimes in 1986; by 1994, that figure had increased to approximately 580 per 100,000" (p. 199). In the midst of many, many possible causes and contributing factors cited by the report, this fact has remained constant: "Dysfunctional family settings—characterized by conflict, inadequate parental control, weak internal linkages and integration, and premature autonomy—are closely associated with juvenile delinquency" (p. 195)

While the data about youth crime in the US, noted above, would appear to be encouraging, it needs to be considered more closely. The good news is that according to a bulletin from the Office of Juvenile

Justice and Delinquency Prevention (Puzzanchera, 2009), juvenile arrests actually decreased by 20% between 1998 and 2007. When Bowlby was thinking of juvenile crime, he seemed to be concerned primarily with theft. In 2007, juveniles accounted for one out of every four arrests for burglary in the US (down from 45% in 1980), but also for one in eight of all violent crimes and one in ten arrests for murder. Additionally, it is of note that the US continues to lead the world as the country with the highest rate of incarcerations, at 756 per 100,000 of the national population, followed by Russia and Rwanda (Walmsley, 2008).

It is dangerous to draw simple conclusions from complex data. Clearly, there are many, many factors that affect arrest statistics beyond just the incidence of behavior, including the prevalence and practices of police officers in given locations at different periods of time, etc. There are, though, striking correlations that should be noted as well. In the US, one of these has to do with race. According to Puzzanchera (2009), African-Americans represented only 17% of the total youth population but 51% of juvenile arrests for violent crime and 57% of arrests for murder. As of 2007, 52% of African-American children lived with a single mother, as opposed to 19% of White children, and 27% of Hispanic children (OJJDP Statistical Briefing Book, 2008). Forty percent of all children living with single mothers lived in poverty, the highest rate except for children living with neither parent, at 42%.

In some ways, the statistics could be said to be encouraging in terms of trends. In other ways (e.g. rates of violence and rates of incarceration) they are quite discouraging. But do they say anything about attachment? They may say a great deal, and they may say nothing at all.

There are conclusions which people might try to draw from the correlations. For instance, it could be assumed that African-American children experience less sense of attachment due to living with single mothers who are often in poverty, and therefore the mothers have less time and ability to focus on those relationships, which results in higher rates of criminal activity. Apparently, people have at times used Bowlby's ideas in ways which seemed to point blame or criticism at individuals. In this case, it would not be surprising if further study found that creating strong attachment relationships with children was significantly more difficult for any single parent living in poverty. The realities of such an environment in today's world just do not lend themselves to ideal human development. In this author's reading and research, though, simply finding fault or even addressing juvenile crime rates is not what Bowlby's work was about.

Fundamentally, Bowlby seems to have been concerned about the healthy development of children. In formalizing his ideas, he apparently felt a great deal of pressure to prove the existence of the problem, and to build theories that could withstand the scrutiny of professional and academic communities. Helping others see and understand what he saw, though, turned out to be no small task. Even though he continued in the direction that Freud had begun, and drew on ideas that Freud himself had noted, crossing lines of professional knowledge was (and still is) too much for many people.

It is probably no coincidence that Bowlby's ideas are still incorporated to this day in information about child development by the World Health Organization. For instance: "Developing an early emotional connection to a caregiver is also critical for an infant's well-being. Absence of attachment to a consistent

caregiver – such as occurs in a poorly run orphanage – can have significant negative effects on brain development and cognitive functioning” (“Early Child Development,” 2009). For some reason, though, we continue to be unable to really address the issues that Bowlby raised.

In 1994, an executive order (i.e. from the president) was issued, creating the US Federal Interagency Forum on Child and Family Statistics. As of 2009, this group includes participation from 22 agencies within the US Government, including not only Health and Human Services and Education, but also the Department of Defense and the Environmental Protection Agency. Their latest report, “America’s Children” (2009), covers 40 key indicators about the status of children and youth in the US. The report includes findings such as; in 2005, “61 percent of children ages 0–6 who were not yet in kindergarten (about 12 million children) received some form of child care on a regular basis from persons other than their parents” (p. 7). Children from families with incomes at least twice the official poverty level were much more likely to be cared for by non-relatives, in center-based programs (nursery schools or early childhood education) than were children living in poverty.

The forty key indicators were grouped into broader categories such as Family and Social Environment, Economic Circumstances, Health Care, Behavior, Education, Health, etc. While the report does cover issues such as emotional and behavioral problems, in no place does it assess the quality of relationships such as early childhood attachment. Relative to Bowlby’s work, there is effort to identify the extent to which any or each of the childcare settings, for instance, is meeting the needs of children, or how each might be affecting different aspects of their development. The closest that the report comes is in noting its own deficit:

The formation of close attachments to family, peers, school, and community have been linked to healthy youth development in numerous research studies... We currently lack regular indicators on aspects of healthy development, such as relationships with parents and peers, connections to teachers and school engagement, and civic or community involvement (America’s Children, p. 12)

Once again, it can be dangerous to draw simple conclusions from complex data. The easiest conclusion to reach about the findings of this research, though, is that we generally do not want to discuss the things that we do not want to know. John Bowlby’s work surfaced issues and questions that run deep into the fabric of our social structures, and even our sense of humanity. If it turns out that we pay less attention to the care of our young than even other animals, what does that indicate about us? If we are ever to get serious about creating the societies that we want, rather than just fixing the problems we create, we will probably have to reconsider John Bowlby.

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