From security to attachment: Mary Ainsworth's contribution to attachment theory

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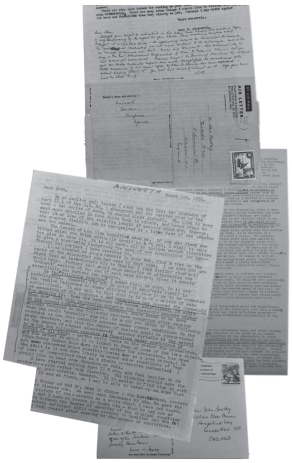

Chapter 1

From Secure Dependency to Attachment: Mary Ainsworth's integration of Blatz's Security Theory into Bowlby's Attachment Theory

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ABSTRACT

John Bowlby is generally regarded as the founder of attachment theory, with some help of Mary Ainsworth. However, Ainsworth's contribution is larger than hitherto believed. Apart from general theoretical input, she contributed the notion of the secure base and exploratory behavior, the Strange Situation Procedure and its classification system, and the notion of maternal sensitivity. On closer scrutiny, all these contributions appear to be influenced by William Blatz and his security theory. Blatz was Ainsworth's mentor and colleague in Toronto from 1930 - 1950. When Ainsworth started working with Bowlby in the 1950s, around the time he turned to evolutionary theory for an explanation of his findings, she integrated Blatzian security theory into Bowlby's theory in the making. She subsequently used her theoretical and practical experience to enrich attachment theory. Even though Blatz is hardly mentioned nowadays, many aspects of attachment theory can be traced back to his security theory.

"When I think of the course of my career, I can see a common thread the whole way through the course that is Blatz, no matter how much I have re-translated his ideas and so on. That is where it started."

(Ainsworth in an interview with Roger Meyers, 1969).

INTRODUCTION

The British psychiatrist and psychoanalyst John Bowlby (1907-1990) is generally regarded as the founder of attachment theory, which he gradually developed and comprehensively formulated in his trilogy (1969, 1973, 1980). According to attachment theory, human infants need a consistent nurturing relationship with one or more sensitive caregivers in order to develop into healthy individuals. Parental unavailability or unresponsiveness may contribute to aberrant behavior or, depending on other risk factors, to psychopathology. Attachment theory is now generally regarded as a major theory in developmental psychology and developmental psychopathology, and over the years its theoretical framework has inspired researchers across the world to conduct thousands of studies.

For a long time, Bowlby was regarded the sole founder. Only since the 1990s, Mary Ainsworth (1913-1999) has gained credit as co-founder of attachment theory, mainly as provider of empirical evidence (e.g., Holmes, 1993; Karen, 1994, Van Dijken, 1998). When tracing back the origins of attachment theory, however, a different picture emerges. As we shall see, Ainsworth's contribution was considerable and went beyond providing empirical evidence (cf. Bretherton, 2003). She clearly added much to the attachment paradigm through her methodological innovations (the Strange Situation Procedure), her new categorization of attachment (into A, B, and C groups), and her theoretical notions (e.g., the balance between exploration and security, the notion of maternal sensitivity). Part of her theoretical ideas were based on the ideas of William Blatz (1895-1964) and his security theory. Ainsworth started off as one of Blatz's students at the University of Toronto in the early 1930s, and in the 1940s became his close colleague. In this contribution, on the basis of an evaluation of written papers and books, personal correspondence between Ainsworth and Bowlby, and personal correspondence between Ainsworth and her former colleagues in Toronto, we will add a new perspective to the historiography of attachment theory and show that Ainsworth's use of Blatzian security theory has been much more important in shaping attachment theory than hitherto realized.

Blatz and Bowlby started to develop their theories during the first half of the 20th century, against the background of the rise of psychoanalysis, the start of the mental health movement and the introduction of the idea that the development of children was shaped by parenting. At the end of the 19th century, the psychoanalytic ideas of Sigmund Freud became widely known and physical health was explained by psychogenic causes, which in turn were believed to find their origin in events during early childhood (Freud, 1920). At the beginning of the 20th century, the "mental hygiene movement" came into existence as a new way of trying to influence human health and well-being by preventing and treating mental illness. Increasing attention was being paid to development during early childhood, which came to be viewed as critical for later mental health (Beekman, 1977). The development of children became the focus of interest and G. Stanley Hall initiated the Child Study Movement, asking teachers and well-to-do mothers to collect knowledge about the development of children (Ross, 1972). Mothers attended specially organized congresses to discuss the best ways to raise children which gave the Child Study Movement the additional benefits of a Parent (self-) Education Movement. Gradually the idea took hold that mothers, much more than the child's genes, were responsible for the way their children turned out.

It seems natural, therefore, that Blatz and Bowlby searched for the origin of mental problems in the pressure cooker of the nuclear family since psychopathology was to be understood as the result of unresolved problems in childhood, for which parents were held responsible. We will see that Blatz and Bowlby shared a medical background and an interest in the psychological development of children. They were both influenced by psychoanalysis – as was fairly common for people working with children during that period – and shared a great interest in the ideas of Freud. During the Second World War, they both focused their efforts on children in the UK who were (temporarily) growing up without adequate maternal care.

However, despite a similar life course and overlapping interests and careers, Blatz and Bowlby never met. Living on different continents, they developed comparable ideas about the influences of relationships on the development of children, and how the effects of these would carry into adulthood. While Bowlby studied the effects of mother-child separation in the UK in the 1930s and 1940s, William Blatz in Toronto was developing his 'security theory'. Ainsworth absorbed this security theory while studying and working with Blatz for almost two decades. When Ainsworth started working with Bowlby in 1950, she came well-equipped and started to infuse Bowlby's theory in the making--which up to that point was based only on separation findings--with Blatz's security theory. At around the same time, Bowlby, in his search for an explanation for the devastating effects of separation in early childhood, was introduced to ethology (Van der Horst, 2011). He would eventually explain these effects with the help of evolutionary theory, which would make attachment theory the first evolutionary science

of human behavior. All through the 1950s and 1960s further important aspects were added to what was to become attachment theory, notably among them the earlier mentioned methodological and theoretical contributions of Ainsworth. We will see that much of this important input was based on what Ainsworth had learned from Blatz. However, before discussing the development of attachment theory after the integration of Blatzian ideas and security theory into Bowlby's theory in the making, we will take a closer look at how Blatz and Bowlby developed their original theories.

BLATZ AND SECURITY THEORY

William Emet Blatz (1895-1964) was born in Hamilton as the youngest of nine children in a German immigrant family. He received his BA in physiology in 1916, his MA in physiology in 1917, his MB (Bachelor of Medicine) in 1921 at the University of Toronto, and his PhD in psychology at the University of Chicago in 1924. That same year Blatz was hired by Dr. Clarence M. Hincks and Professor Edward Bott, as Assistant Professor in the Department of Psychology at the University of Toronto, where Blatz was to be in charge of a new child study project. The University of Toronto was asked to carry out a longitudinal study following the social adjustment of children in a laboratory nursery school in order to learn as much as possible about the development and processes of individual adjustment of normal children. The project was funded by the Canadian National Committee for Mental Hygiene (of which Hincks and Bott were members and of which Blatz, incidentally, would be Research Director from 1925 to 1935). Following psychoanalytic thinking prevalent in those years, Blatz reasoned that good adjustment in childhood would be the best predictor for happiness in later years, and that in order to begin the search for mental hygiene principles, studying children would be the most logical start (Blatz & Bott, 1929). Parallel to the longitudinal child development study, a parent education program was set up.

All through the 1920s and 1930s Blatz remained involved in research projects concerning pre-school and school-aged children. In 1931 he became director of the Windy Ridge Day School where research was conducted and from 1935 to 1938 he was involved with the Dionne Quintuplets, the first quintuplets known to survive. The Ontario government took custody of the children at the age of 4 months, and Blatz was appointed as their Educational Consultant.

During this period, Blatz wrote a number of books and articles on parenting, some together with colleagues like Sperrin Chant, Edward Bott, Helen Bott or Dorothy Millichamp, and some alone. In all his writing it becomes clear that Blatz strongly felt that a child needed a sense of belonging, and his notion that children need to be able to rely on their parents in order to grow up mentally healthy was present from the start: "That the child should grow up with complete trust in his parents is a further aid to

good adjustment, provided that that trust is deserved" (Blatz & Bott, 1931, p. 183). In order to study mental hygiene effectively, however, Blatz increasingly felt the need for an operational definition of mental health, or adjustment, as he called it.

Influenced by his medical background and by the omnipresent psychoanalytical ideas (as a young man, Blatz read all of Freud's work (Raymond, 1991)), Blatz's earlier writings discussed the ongoing cycle of 'appetites' (cf. 'drives' in psychoanalysis) that needed to be satisfied: hunger, thirst, sleep, elimination, sex, and play (or 'change'), and the attempts made by the organism to fulfill these needs. Blatz described how the cycles of the appetites continuously repeat themselves as children develop from totally dependent to more and more independent – while each time effort has to be made or learning has to be done to meet the need of the moment (Blatz & Bott, 1929; Blatz, 1933). In his explanations Blatz referred to McDougall's (1928) terms of self-assertion (mastery) and its opposite of self-negation (dependence). He considered guiding the young child in fulfilling these needs to be of dire importance: "We are inclined to think that the proper management of the self-tendencies of the child during the earlier pre-school years offers the surest preparation for satisfactory personality adjustment during the whole of life" (Blatz & Bott, 1929, p. 299).

From these original thoughts, though firmly grounded in psychoanalytic theory, Blatz gradually developed his security theory, in first instance together with Chant, but over the decades it became increasingly clear that security theory was his own very personal contribution to psychology. Aspects like appetites, deputy agents, and stage models are undeniably Freudian, but Blatz never publicly acknowledged this and in many respects he was anti-Freud (Myers, 1969). Blatz differed from Freud in his opinion that thoughts or wishes could not possibly be unconscious; Blatz's appetites did not, like Freud's drives, have a common pool of libidinal energy; and the notion of 'appetite of change' was original and very important for his security theory since that appetite caused exploratory behavior, which in turn caused learning and the gaining of experience, leading to security. All through the 1930s and 1940s Blatz lectured extensively on his security theory but published little; he mentioned his theory in earlier writings (e.g., Blatz, 1934), but properly explained it in writing for the first time in his book *Hostages to Peace* (Blatz, 1940). It was not until 1944 that he devoted a complete chapter to the concept of security in his book *Understanding the Young Child*, in which he gave the following definition: "Security may be defined as the state of consciousness which accompanies a willingness to accept the consequences of one's own decisions and actions" (Blatz, 1944, p. 164). He went on to explain that a feeling of security could also be experienced if a person was confident that someone else would accept these consequences for him, in which case the security would be of the dependent kind.

Blatz stated that the developmental course of security is as follows. Children start off having to depend on their parents. This state Blatz called 'infantile or immature

dependent security'. As children grow older and begin to feel certain the parent is going to be there for them no matter what, the dependence becomes 'secure' and they will feel comfortable to go and explore the environment– i.e., to use the parent as a 'secure base'. Whilst exploring, the child will learn skills and gain knowledge necessary to depend on himself with confidence, so when he encounters a similar situation next time, he will know how to deal with it and thus feel secure. Ideally, this continuous exploration (or satisfying of needs, as the child will be driven by, for instance, his need for change) will result in development towards a state of 'independent security'. In achieving this state of independent security, Blatz emphasized the importance of a stable mother figure or mother substitute:

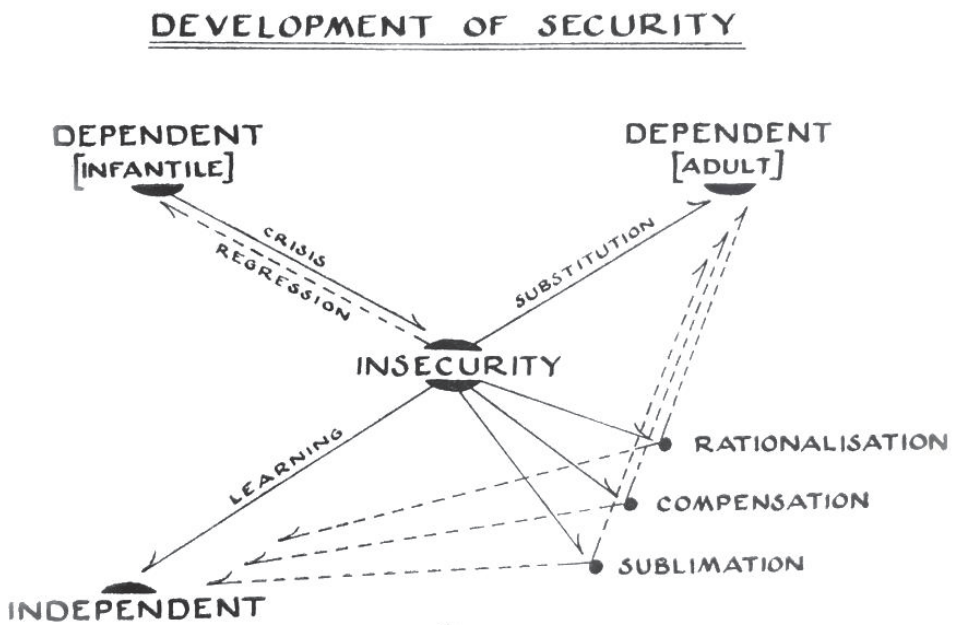
> At first, the familial intimacies of the child afford him ideal dependent security. Through the senses the child accumulates a wealth of experience of a stable nature. Taste, smell, touch, sight, and sound become familiar and form the stable part of the otherwise changeable universe into which the child may retreat. The accumulation of this experience is often overlooked by observers and often misinterpreted. The concepts of "mother" or "parent" are not present at this early stage: any person may serve as the origin of these experiences. It is the *stability* which is important if the child is to feel secure. Later on, as the child explores the experience of independent security, the stability of his familial intimacies becomes less important. He learns to accept the thrill of a new social life. (Blatz, 1944, p.181, original italics)

However, Blatz admitted that independent security can never be reached completely and in his later writings he stated that a combination of independent security and 'adult or mature dependent security' on friends and/or a partner is the highest achievable goal. Those who do not feel sufficiently secure or lack adequate skills may avoid the inevitable frustrations which exploration of the environment brings and, thus, may not learn to become secure and relatively independent persons. Rather, they remain 'immaturely dependent' or rely on so-called deputy agents like rationalization, compensation or sublimation (cf. Freud's defense mechanisms) in order to deal with their feelings of insecurity (see Figure 1). Because these defense mechanisms may not work in every situation, such individuals may develop mental or social problems.

According to Blatz, security is important in different spheres of a person's life: parent-child relations ('familial intimacies'), interpersonal relations outside the family ('extra-familial intimacies'), adjustment to work or school ('vocation'), leisure-time activities ('avocations') and religion or other beliefs ('philosophy of life').

When summarizing Blatz's position, three important ideas can be identified that are also main ingredients of later attachment theory. First, he considered the role of a stable mother (figure) during the early years very important for a healthy development of the child. Second, Blatz considered using the mother as a secure base from which to explore as one of the most important ways to reach a state of independent security.

Third, instead of trying to measure security on a continuous scale, Blatz identified different types or categories of security: independent security, immature (or infantile) dependent security, mature (or adult) dependent security, and pseudo-security: relying on deputy agents.



Development of Security (Blatz, 1944, p. 165)

Over the years, Blatz changed his security theory little. During the Second World War many members of the Toronto University staff joined the armed services in personnel selection, while Blatz spent some time in the UK to set up model wartime day nurseries. After his return to Toronto he picked up his work on security again. Together with Mary Ainsworth (then Salter), who, in the late 1930s, had been the first student to write her PhD project under his guidance on measuring security, Blatz continued to guide PhD students in developing an array of security measures (amongst whom Betty Flint, who developed the Flint Infant Security Scales; cf. Flint, 1959; 1974). A full and final account of Blatz's security theory was published posthumously (Blatz, 1966).

JOHN BOWLBY AND MOTHER-CHILD SEPARATION

Edward John Mostyn Bowlby (1907-1990) was born in a Victorian upper-middleclass family in London as the fourth of six children. Typical of their social class, the Bowlby children were raised in a distant, reserved manner. A nanny and several nursemaids were responsible for most of the upbringing of the children, who saw their parents only occasionally. Nursemaid Minnie took care of little John on a daily basis and when she left when John was only four years old, he was conceivably hurt by the event. Later Bowlby (1958a) stated that "for a child to be looked after entirely by a loving nanny and then for her to leave when he is two or three, or even four or five, can be almost as tragic as the loss of a mother" (p. 7).

Bowlby had a rather start-stop beginning of his professional career. In 1921, at age 14, he entered the Royal Navy College in Dartmouth as a navel cadet. Surprisingly enough, this is where he first came across the writings of Freud. Shortly afterwards, and possibly influenced by his father's work as a medical surgeon, he decided to leave the navy and pursue a career that "would improve the community as a whole" (Van Dijken, 1998, p. 46). He began studying medicine at Trinity College in Cambridge in 1925—eventually receiving his MD in 1933—but more and more he became "interested in psychology, especially what would now be called developmental psychology" (Senn, 1977, p. 1). In 1928, Bowlby bought and read Freud's *Introductory Lectures on Psycho-analysis* (1917), a book that he would later rank among the eleven most important books he ever read (Van der Horst & Van der Veer, 2010). But "apart from a medical background and an interest in psychology, [Bowlby's] choice of career had been determined by what [he] had seen and heard during the six months that [he] had spent in a school for disturbed children" (Bowlby, 1981, p. 2). Here, Bowlby referred to two so-called progressive schools where he volunteered in 1928 and 1929, schools that were heavily influenced by psychoanalytic thinking. Following Freud's reasoning of the potential detrimental effects of parental inadequacy, the psychological problems of the children at Priory Gate School—it was a school for "difficult" children—were as a rule attributed to adverse emotional experiences in childhood. So Bowlby was provided with an explanatory model for the maladaptive behavior of these children: the cause of mental disturbances and deviant behavior was deprivation of love in childhood. While working at these schools Bowlby was advised by a staff member to start psychoanalytic training, which he eventually did.

During the 1930s, Bowlby was trained as an 'orthodox' psychoanalyst at the British Psycho-Analytical Society, while concurrently working at several more 'eclectic' treatment facilities such as the Maudsley Hospital, the Scientific Treatment of Delinquency and the London Child Guidance Clinic (Van der Horst & Van der Veer,

2009a, 2010). As we have seen, the Child Guidance Clinics were a result of a Mental Hygiene Movement and they spread from the US to the UK in the 1920s. In his clinical work, Bowlby found that for most problematic behavior in childhood there was a cause in real-life, be it neglect, emotional or physical deprivation, or separation. One can imagine that his psychoanalytic analysis with Joan Rivière and Melanie Klein, who both emphasized that emotional problems were merely a result of "imaginings of the childish mind" (Riviere, 1927, p. 377), were inevitably going to lead to difficulty and conflict. Nevertheless, Bowlby finally qualified as full member of the British Psycho-Analytical Society in 1939 by reading a paper on the importance of real-life experiences in causing neurosis and neurotic character (published as Bowlby, 1940b; cf. Van der Horst, 2011).

So, in the late 1930s and early 1940s, Bowlby started to disseminate his ideas about the all importance of the early relationship between a mother and her young child. The ideas in his early papers show that he and Blatz were thinking much along the same lines. Bowlby wrote of "the immense emotional importance of home and family life" (Bowlby, 1940a, p. 186) and "the vital emotional background of security which even a bad home provides for a child" (Bowlby, 1939, p. 3). He considered "the emotional bond between child and mother [as] the basis for all further social development" (Bowlby, 1939, p. 3). But even though Blatz recognized the negative effects of mother child separation ("The sudden removal of a parent may leave a child feeling insecure and without a pre-learned pattern to relieve his insecurity" (Blatz, 1944, p. 168)), Bowlby put far stronger emphasis on the importance of physical separation experiences, and stated that the disruption of this bond could have severe consequences for later personality development. According to Bowlby, even minor separation experiences could endanger the healthy development of young children (Bowlby, 1960a). The rudimentary mechanism Bowlby described in one of his papers anticipated current ideas of attachment representation (cf. Main, Kaplan, & Cassidy, 1985) by several decades: "Gradually his confidence in and affection for his mother become generalised until he is able ultimately to develop friendly and happy relations with other grown-ups and other children" (Bowlby, 1939, p. 3).

In support of these more general assumptions, Bowlby was able to draw up a paper that reported on the early development of juvenile delinquents he had seen while working as a child psychiatrist. In *Forty-four Juvenile Thieves*, Bowlby (1944, 1946) compared the case histories of 44 thieves treated at the London Child Guidance Clinic with a control group of 44 non-thieves. Bowlby's (1940a) earlier prediction that a "broken mother-child relationship" in the first three years of life leads to emotionally withdrawn children was supported by these case histories: almost all of the emotionally withdrawn children who were prone to stealing—the so-called 'affectionless thieves'—turned out to have experienced major separations from their mother in the critical age period, whereas the children in the control group had not experienced separation from

the mother. On the basis of these findings, Bowlby concluded "that the socially satisfactory behavior of most adults is dependent on their having been brought up in circumstances ... which have permitted... satisfactory development of ... object-relationships" (Bowlby, 1944, p. 125).

The *Forty-four Juvenile Thieves* paper is sometimes considered as "the real key to the development of Bowlby's thinking," because Bowlby "noticed that many of the delinquent adolescents had disrupted childhoods and that put him on the trail" (Van der Horst et al., 2007, p. 322). Indirectly, it led to Bowlby's assignment with the World Health Organization, where he was asked to do a report on mental health problems of homeless children—a major problem after World War II (Van der Horst, 2011). It was another opportunity for Bowlby to test his hypothesis that "separation experiences are pathogenic" (Bowlby, Robertson, & Rosenbluth, 1952, p. 82). His extensive reading into the early work on deprivation and his travelling around the globe to consult international experts in both Europe and the US resulted in a monograph titled *Maternal Care and Mental Health* (Bowlby, 1951, 1952). Bowlby's general conclusion was that

> the evidence is now such that it leaves no room for doubt regarding the general propositions—that the prolonged deprivation of the young child of maternal care may have grave and far-reaching effects on his character and so on the whole of his future life. (Bowlby, 1952, p. 46)

So by 1950, just months before Mary Ainsworth would come to work at the Tavistock Clinic, Bowlby had firmly arrived at the position that early childhood separation had clear adverse effects, an idea that remained remarkably stable over time (Van der Horst & Van der Veer, 2010). However, a comprehensive theoretical framework explaining the child's need for a consistent mother (figure) was missing. Besides, Bowlby's findings were suggestive, based on retrospective studies, and not yet backed up by experimental research. Bowlby's acquaintance with ethology in the early fifties would enable him to base his findings on evolutionary theory and so provide a solid ground from which to work. At around the same time, Bowlby was introduced to Ainsworth, who came equipped with all she had learned from Blatz and his security theory. As we shall see, Ainsworth's role in the development of attachment theory would be of crucial importance.

AINSWORTH'S EARLY CAREER AND WORK WITH BLATZ IN TORONTO

Mary Dinsmore Salter was born in Glenville, Ohio, in 1913, the eldest of three daughters. In 1918 her father was offered a promotion, which made it necessary for the family to relocate to Toronto. After reading William McDougalls' *Character and the*

conduct of life (1928) Ainsworth[1] decided to study psychology and enrolled in the University of Toronto in 1929 at the age of 16. As an undergraduate, she took courses with Blatz and was for the first time exposed to his theory of development and security: "It was a theory of personality development, and that was what I had been waiting for!" (Ainsworth, 1983). After obtaining her BA in 1935 Ainsworth continued at the University of Toronto doing graduate work in psychology, and was appointed teaching assistant of Bott, while Chant offered to supervise her Master's Thesis on the relationship between attitudes and the emotional response, resulting in a publication (Salter & Chant, 1937).

After completing her Master's Thesis, Blatz asked Ainsworth if she would do her dissertation research under his guidance, developing an instrument to measure security in young adults. Impressed as she was with Blatz and security theory (which at this stage was still considered the joint work of Blatz and Chant), she was honored and accepted his offer. Ainsworth worked on her dissertation from 1936 to 1939, constructing self-report pencil-paper scales to be used in assessing the security young adults experienced in their relationships with parents and with friends (Van Rosmalen, Van IJzendoorn, & Van der Veer, 2014).

After receiving her PhD in 1939, Ainsworth was appointed lecturer at the University of Toronto. Shortly after, the Second World War started and as we have seen, Bott, Chant and Blatz left the university to contribute to the war effort. Ainsworth stayed on at the University for three more years, carrying on the work of the department together with several other recent female PhDs.

In 1942, Ainsworth was "no longer content to be away from where the action was" (Ainsworth, 1983, p.6) and joined the Canadian Women's Army Corps. After her basic and officer's training she was appointed personnel selection officer, having to recommend placement after administering tests and taking interviews. She moved through the ranks quickly and was promoted from second lieutenant to major within a year. During the winter of 1943-1944 Ainsworth spent four months in the United Kingdom, visiting the Personnel Selection Service of the British Army. After the war had ended Ainsworth worked as superintendent of Women's Rehabilitation in the Department of Veterans' Affairs, but within a year she felt that she had completed setting up the rehabilitation program and needed a new challenge. In 1946, Bott, who had by then returned to the University of Toronto, offered her an appointment as Assistant Professor, which she gladly accepted. In order to teach a course on personality assessment satisfactorily, Ainsworth found out everything she could about the Thematic Apperception Test, as well as about paper-pencil tests and projective tests in general. She

[1] Even though Ainsworth was called Salter until her marriage in 1950, to prevent confusion we will refer to her as Ainsworth throughout this article.

also attended a couple of workshops in the Rorschach technique directed by Bruno Klopfer, and wrote a booklet for her students to help with the study of the Rorschach Technique, of which hundreds of copies were sold. (Incidentally, as a result of this, in the early fifties Ainsworth would co-author *Developments in the Rorschach Technique, Volume 1* with Klopfer (Klopfer, Ainsworth, Klopfer & Holt, 1954)).

From 1946 to 1950 Ainsworth and Blatz co-directed a research team that was developing scales to assess security, expanding on Ainsworth's dissertation research by focusing on other aspects of life. Ainsworth then married a member of that team, Leonard Ainsworth, who wanted to continue for a PhD after completing his Master's Degree. Since Ainsworth had a faculty appointment in the same department, the young couple felt they had no option than to move elsewhere and in 1950 Leonard was accepted as a doctoral student in London at University College. The Ainsworths moved to the UK.

AINSWORTH'S MOVE TO LONDON AND COOPERATION WITH BOWLBY

In London Ainsworth received a tip from Edith Mercer, a UK-based war-time colleague, and applied for a position as Senior Researcher specializing in child development and projective techniques at the Tavistock Clinic, working for John Bowlby. As we have seen, Bowlby had been researching the effects of maternal separation during childhood on personality development, and was gradually forming a theory based on the findings. In contrast to Blatz's security theory, Bowlby's theory was at this point still under construction: "Blatz had been theory oriented, but my experience with Bowlby was my first with a theory in the making" (Ainsworth, 1983, p. 8).

Working with Bowlby made her realize that while in Toronto she had been studying young adults retrospectively, using tests and measures, it made much more sense to study infants or young children by doing direct observations (Meyers, 1969). Even so, next to her work with Bowlby, Ainsworth did continue her work with young adults on the Security Questionnaires she had started with Blatz for at least another decade (Van Rosmalen, Van IJzendoorn, & Van der Veer, 2014). One of the main projects Ainsworth worked on when in London at the Tavistock Clinic was provisionally named Current Studies 1. Together with Bowlby and James Robertson (1911-1988), a psychiatric social worker and psychoanalyst, she collaborated in a book project on infant-mother separation. The project was concerned with

> the emotional responses which can be observed when infants and young children are separated from their mothers for shorter or longer spans of time and with their behavior later when they return home. ... This book is written in the belief that the observations reported and the psychological processes discerned are of wider significance. This stems

> from our belief that the responses which characterize the young child's relation to his mother, whether he is with her or away from her, provide a template on which in some degree later social responses are modeled, especially those to love objects. (letter from Ainsworth to Bowlby, 1 August 1955)

Ainsworth was very impressed with Robertson's transcriptions of his observational notes and the method of direct naturalistic observation that was used for Current Studies 1 (Ainsworth, 1983). Robertson, famous for his 1952 film "A two-year-old goes to hospital", trained in observing and taking notes when he worked in Anna Freud's wartime nurseries during the second world war. But even though Ainsworth may have learned the value of direct observation in her work with Bowlby and Robertson, theoretically it was she who contributed important insights. Her influence was clearly visible from the start: in the first paper Ainsworth and Bowlby (1954) published together, titled "Research strategy in the study of mother-child separation", the term "attachment" was not yet used as a theoretical notion. Instead, Ainsworth and Bowlby consistently referred to a "secure dependency relationship", specifically naming Blatz as the founder of this concept:

> The basic hypothesis underlying separation research is that actual physical separation from the mother in early childhood, to the extent that it involves privation or deprivation of a relationship of dependence with a mother-figure, will have an adverse effect on personality development, particularly with respect to the capacity for forming and maintaining satisfactory object relations (Ainsworth & Bowlby, 1954, p. 6).

The choice of the term 'dependence' they explained in a footnote as follows:

> It is not easy to know which term is best used to describe this emotional relationship. Several have been proposed. [...] In this paper we are using the term "dependence" having been influenced in our choice by the concept of "dependent security" developed by Blatz, with whom one of us (MDA) has been closely associated. (ibid.)

Ainsworth worked with Bowlby at the Tavistock from 1950 to the end of 1953, when she followed her husband once again to another continent. However, as we will see, the collaboration between Ainsworth and Bowlby would continue until Bowlby's death in 1990.

AINSWORTH'S INDEPENDENT WORK IN UGANDA AND BALTIMORE

In 1954 Leonard found another job, this time in Uganda, and Ainsworth accompanied him to the African continent. Inspired by the separation work she had done with Bowlby, Ainsworth set up a study researching the responses of infants to separation at weaning. Traditionally, infants in Uganda were separated from their mothers to stay with their grandmothers for a time to facilitate weaning. However, as it turned out, this custom was no longer being followed and Ainsworth decided on the

spot to study general child development instead. While conducting the study she paid a lot of attention to the mother-child bond and to how this bond developed. In the meantime, she also carried on working on Current Studies 1, reviewing chapters and corresponding frequently with Bowlby and Robertson. As part of this correspondence, Ainsworth and Bowlby exchanged theoretical ideas and reflected on each other's ideas. They would easily type ten single-spaced pages in which they would set out their ideas for the other to mull over and comment on. As Bowlby was being drawn into ethology, he argued that the dependency need had an evolutionary basis, but Ainsworth was not convinced: "I must confess that I feel very undecided between Dr. Bowlby's implication that the dependency need in humans has an innate basis along ethological lines, and a somewhat more traditionally psychological explanation of the dependency need as a derived or acquired need, built up through the canalization and integration of a variety of needs on one object – the mother." (Ainsworth in a letter to Bowlby and Robertson, 12 March 1954). In fact, she later admitted that she had been worried that Bowlby, using Konrad Lorenz's (1935, 1937) work to argue against the still very popular psychoanalytical ideas, might ruin his reputation (Ainsworth & Marvin, 1995).

However, while studying the mother-child dyads in Uganda and seeing attachment develop, Ainsworth experienced a "paradigm shift": she made a transition from thinking in psychoanalytic terms to thinking in terms of ethology (Ainsworth & Marvin, 1995). Not long after she wrote to Bowlby: "By now I am quite won over to your notion of some primary basis for social needs quite over and above the physiological needs." (Ainsworth in a letter to Bowlby, 1 August 1955).

In 1955, after Leonard Ainsworth's two-year appointment in Uganda had ended, the couple moved to Baltimore where Leonard had found employment as a forensic psychologist. Ainsworth found a position as lecturer at the Johns Hopkins University. Ainsworth and Bowlby continued their correspondence and letters show that Ainsworth tried to make sense of the differences and similarities between security theory, dependency ideas and attachment ideas. She wrote to Bowlby:

> [I]t struck me that one interesting point about the dependency business is that there is by no means strict concomitance between the actual dependence of the child in terms of helplessness and his feelings of need for dependence (or attachment, to use your term).... the child who has no opportunity for attachment ... does not develop competencies at the normal rate, and continues longer in a more complete state of dependency than the normal child even though attached to no one. Moreover, the child who is insecure in his relationships to his mother, does not develop skills ... as well as the secure child, and thus insecurity in attachment may prolong the period of dependency. Moreover, insecurity in the relationship between child and mother may prevent the child from using what skills he has as a basis for relative independence... the child who is secure in his attachment is by the age of 2 1/2 or 3 years ready to rely on his competencies to a certain extent, to take pride in

> them, and to shrug off attempts to help him. (Ainsworth in a letter to Bowlby, 1 August 1955)

Even though they now resided on different continents, two years after their first article together, Bowlby and Ainsworth co-authored another article (Bowlby, Ainsworth, Boston & Rosenbluth, 1956). In this article, the term "attachment" was used for the first time, reflecting Bowlby's increasing interest in ethology and his notion that the child's tie to its mother was instinctive and evolutionary, and not merely driven by her seeing to his physical needs. "Dependency", which was previously ascribed to Blatz, was now referred to as a "common clinical term":

> Elsewhere (Ainsworth & Bowlby, 1954) we have discussed the problem of selecting the most suitable term to describe the young child's relation to his mother and there decided in favour of the common clinical terms 'dependent' and 'dependency', both of which have been used in this paper. The disadvantage of this terminology, however, is that it may imply that the young child's relation to his mother is a secondary result of her being the provider of food, warmth, etc. Since it seems equally likely that the relationship is primary we now prefer the more neutral terms 'attached' and 'attachment'. (Bowlby, Ainsworth, Boston & Rosenbluth, 1956, p. 237)

In the late 1950s and early 1960s there were several proposals to revise the 1954 article on Research Strategy, first to be published on its own, and then as an appendix to Current Studies 1. In a letter to Bowlby regarding the revision, Ainsworth suggested to replace all instances of "dependency" in the article for "attachment". Bowlby agreed to this (Bowlby in a letter to Ainsworth, 7 November 1960). However, even though the terminology changed, in correspondence to her former colleagues in Toronto Ainsworth repeatedly pointed out that for attachment, they could read "dependent security", and that although she had not continued work on the security measures, her focus had hardly changed and she was still concerned with the development of "immature dependent security". The biggest difference was that in Toronto her focus had been on young adults and she had considered her field to be clinical psychology, whereas now her focus had shifted to young children and she felt she was working in the field of child development, but

> as a good Blatzian, I am concerned with the balance between independent and dependent security. I have been astonished to find how early in the first year of life the first strivings towards autonomy and independence emerge. Attachment (dependent security) and autonomy develop concomitantly. At the end of the first year, it seems to be, the best measure of attachment (dependent security) is the extent to which the baby can use his mother as a secure base from which to explore the world – which, empirically, looks like independence. (Ainsworth in a letter to Mary Northway, 23 March 1965)

When Ainsworth sent a prepublication manuscript of "Attachment and exploratory behavior of one-year-olds in a Strange Situation" (later published as Ainsworth & Wittig, 1969) to Mary Northway, she again explained:

> I think your group might be interested in it especially since there is so much of it that relates pretty directly to Blatzian theory – if for attachment you read "dependent security" and for exploration you read "independent security". (Ainsworth in a letter to Mary Northway, 31 August 1965)

Thus, the influence of security theory was evident in Ainsworth's and Bowlby's first joint writings, but it also showed in articles written by Bowlby alone: "[T]he aim that the child should grow up to become confidently independent is synonymous with the aim that he should grow up mentally healthy" (Bowlby, 1956). Ainsworth's correspondence with her former colleagues in Toronto shows that even fifteen years after she had left, she felt that her work was still in tune with Blatz's ideas.

However, infusing Bowlby's theory under construction with Blatzian security ideas and terminology was not all Ainsworth did. Attachment theory contains at least three more of Ainsworth's contributions that play a paramount role in attachment theory, all of which show clear signs of Blatzian influence. As mentioned before, these were the theoretical notion of the balance between exploration and security, with the use of the mother as the 'secure base' (which Ainsworth in turn officially ascribed to Blatz), her methodological innovations (the measurement of the security of attachment by use of the Strange Situation Procedure and classification into A, B and C groups), and the concept of sensitivity as a precursor for security of attachment.

AINSWORTH'S CONTRIBUTIONS TO ATTACHMENT THEORY: THE SECURE BASE

The secure base was first mentioned in print in Ainsworth's dissertation (Salter, 1940): "Familial security in the early stages is of a dependent type and forms a basis from which the individual can work out gradually forming new skills and interests in other fields. Where familial security is lacking, the individual is handicapped by the lack of what might be called a secure base from which to work" (Salter, 1940, p. 45). Blatz had mentioned the importance of the mother as the person the infant could depend on when satisfying his need for change (one of the appetites mentioned above) by showing exploratory behavior during the phase of immature dependent security. If the infant felt secure, he would be interested in the world around him and move out to explore. If the exploring proved too much, the parent should be accessible so the infant could immediately go back to his "secure base", until reassured enough to venture out again. In her book on the Uganda study, which incidentally didn't appear until a decade after conducting the research, Ainsworth (1967) clearly used Blatz's notion of the secure base to interpret her empirical findings and emphasized, contrary to popular belief, (Shaffer

& Emerson, 1964a) that a strong attachment does not preclude but rather promotes autonomy. Although there are indications that Ainsworth told Bowlby about the secure base phenomenon during his visit to Baltimore in 1958 (Isaacson, 2006; Ainsworth & Marvin, 1995), she more fully explained herself in her comments on the manuscript of Bowlby's Volume II, Separation:

> I am gratified that you find "secure" and "security" useful terms – since I have been using them since 1936! And essentially in the same way. .... Harlow's infant rhesus thus flees to his "mother" as a haven of safety, but after having clung to her a while he can venture forth using her as a secure base. (Ainsworth in a letter to Bowlby, 10 April 1962)

She freely admitted getting the notion of the secure base from Blatz:

> It has been on my mind ever since to trace the "secure base" concept back in Blatzian writings. I suspect that it is entirely oral tradition...nowhere can I find a specific reference [in Blatz's writings] to the child using the mother as a secure base from which he can explore the world – although I feel as though I have had this concept for many years and that I learned it from Blatz. (Ainsworth in a letter to Harlow, 26 March 1964)

Ainsworth's notion that only the secure child would show independent exploratory behavior in a strange environment, using his mother as a secure base, inspired her to include this as an aspect to observe when designing an instrument to measure security of attachment, the Strange Situation Procedure.

AINSWORTH'S CONTRIBUTIONS TO ATTACHMENT THEORY: THE STRANGE SITUATION PROCEDURE AND CLASSIFICATION

The Strange Situation Procedure (SSP) is Ainsworth's best-known contribution to attachment theory. The SSP is a laboratory procedure to measure and classify the child's attachment to his or her caregiver. Even though almost all children become attached, the quality or security of this attachment relationship varies. The SSP prompts attachment behavior, which is then observed and classified. The laboratory procedure consists of eight episodes in which the child is first taken to a strange environment with its mother, after which a stranger enters, the mother leaves, and returns. It is then the stranger's turn to leave, after which the mother also leaves, and the child is alone in the room. In the final episodes, first the stranger returns, and then the mother. Special attention is paid to the child's exploratory behavior (is he using the mother as a secure base from which he can venture out and explore?) and his behavior during the reunion episodes. The sooner the child resumes exploration of the toys in the room after the mother returns, the more he is considered secure. More specific classification is based on the behavior of the child at reunion with the mother: attention is paid to whether he seeks contact and is put at ease quickly, or whether he tries to avoid contact, or is angry or acts in a disorganized way.

Even though Ainsworth's first publication on the SSP was in 1969 (Ainsworth & Wittig, 1969), ideas leading to her designing the instrument were already present early on (Van Rosmalen, Van der Veer, Van der Horst, 2015). Ainsworth herself has explained in interviews and articles how her early research in Toronto with Blatz , designing instruments to measure security in young adults, eventually led her to design the SSP (e.g., Ainsworth, 1983, 1988, 2010; Ainsworth & Bowlby, 1991; Ainsworth & Marvin, 1995; Myers, 1969; Rudnytsky, 1997; Stevenson, 1998). In the process of designing her early security scales, patterns emerged instead of a clear linear measure. She later stated that she had been looking for patterns ever since (Ainsworth, 1983). In the Uganda study the first official attachment patterns emerged, observed in 1954-55 but not published until 1967. The first time we see a categorization of patterns (at this stage called "personality patterns") in print is in her second article with Bowlby (Bowlby et al., 1956). Seven categories described the way the children "organised their object relations": A. Conforming, B. Over-dependent, C. Withdrawn and over-dependent, D. Ambivalent, E. Mother rejecting, F. Affectionless, and G. Superficial. A comparison was made with the children's adjustment scores, which rated from 1 (clearly well adjusted) to 5 (severely maladjusted). When comprising the results, three groups remained: a group of children showing positive feelings towards their mother (but differing in their confidence in this relationship), an ambivalent group, and a hostile or indifferent group – a rudimental version of the later SSP classifications.

Ainsworth's SSP categorization into secure and insecure attachment echoes Blatz's dependent and independent security categories. Bowlby had not used this kind of categorization before his cooperation with Ainsworth, and correspondence as much as ten years after publication of their second article shows that he still referred people to Ainsworth when they wanted to know more about the distinction between secure and insecure attachment (Izaakson, 2006). Ainsworth, on the other hand, was unlikely to have advanced the hypothesis that "the experience of separation may account in part for these different outcomes" if it wasn't for Bowlby's input (Bowlby et al., 1956, p. 242)

Many authors (Bretherton, 1992; Holmes, 1993, Van der Horst, 2011) have pointed out that the SSP played a fundamental role in the increasing acceptance of attachment theory. Rather than observing naturally occurring caregiver-child patterns for lengthy periods of time, it now seemed possible to typify the caregiver-child relationship within the time frame of 20 minutes. This quickly led to the SSP being widely used.

AINSWORTH'S CONTRIBUTIONS TO ATTACHMENT THEORY: MATERNAL SENSITIVITY

When it comes to sensitivity of the parent as a predictor for secure attachment, this is generally attributed to Ainsworth. As part of the Baltimore study, she identified

different dimensions of maternal care that seemed to predict infant-mother attachment security (Ainsworth, 1969; Ainsworth, Bell & Stayton, 1971). Earlier, Ainsworth talked about being "sensitive to the signals" of a child as timing one's "caretaking interventions in synchrony with the individual child's needs and rhythms" (Ainsworth, 1967, p. 394). As we have seen, Bowlby believed that it was essential for mental health "that the infant and young child should experience a warm, intimate, and continuous relationship with his mother (or permanent mother-substitute)" (Bowlby, 1951/1952, p. 11). Ainsworth, however, pointed out that maternal warmth and maternal sensitivity were not be confused, since maternal warmth is a characteristic of the mother, whereas sensitivity refers to an appropriate response to the baby's initiative. (Ainsworth & Marvin, 1995; Mesman & Emmen, 2013). In Ainsworth's view, attachment was indeed being formed by the (continuous) presence of the attachment figure, but the *security* of this attachment was being influenced by the sensitivity of the attachment figure.

As Bretherton (2013) has pointed out, Ainsworth might have first come across the terms "sensitivity" and "responsiveness" during her attendance of the 1959 Tavistock Study Group meeting, where Miriam David and Genevieve Appell posed the following question when presenting their case notes on the maternal deprivation of a two-year-old girl arriving at their institution: "Is the nurse sensitive and responsive to signals coming from the child or to the child's state?" (Appel & David, 1961, p. 132). However, Ainsworth's time with Blatz may well have planted the seeds of this way of thinking. In his parenting advice books, Blatz repeatedly emphasized the importance of being sensitive to the motives of the child's behavior: "We should enter the child's world by showing a patient, intelligent effort to unravel the child's motives, to put oneself in his place, to see the world from his point of view" (Blatz, 1931, p. 268). To ensure a happy adjustment of children and parents, Blatz urged parents to adopt an attitude of "pliability, patience, ingenuity and understanding" (Blatz, 1929, pp. 281-282).

Blatz also made clear that once you understood why a child reacted in a certain way, you should be responsive, as it were, by adjusting to the child. Overregulation by the parent would provoke tantrums, which Blatz considered a normal and legitimate way of protesting by the child. Conditions should be "adjusted to the child, instead of the child being made over to fit the conditions" (ibid., p. 229). Blatz felt that the effects were long-term: "The child who is persistently misunderstood or ignored is being thwarted more effectively than if we build a wall around him" (ibid., p. 230). Apart from being taught about this parental attitude by Blatz through his lectures, Ainsworth co-wrote an article on emotional episodes in the child of school age (Blatz, Chant, & Salter, 1937) in which this attitude towards children was clearly promoted, and parents and teachers were warned not to repress emotional behavior by mere discipline or

punishment, but to carefully look at the child's developmental stage and offer gentle guidance accordingly, facilitating the learning of adaptive behavior.

It is not surprising, then, that Ainsworth decided to pay attention to maternal behavior when studying the development of infant-mother attachment in Uganda and in Baltimore. For the latter study she designed maternal scales to measure acceptance-rejection, cooperation-interference, accessibility-ignoring and sensitivity-insensitivity. Of the last dimension she said: "The sensitive mother is able to see things from her baby's point of view" (Ainsworth, Bell, & Stayton, 1971, p. 41). Ainsworth found that sensitive mothers were more likely to have securely attached children. She also found that maternal responsiveness promoted desirable behavior, rather than spoilt behavior (Bell & Ainsworth, 1972). Even though the role of sensitivity is now believed not to be as decisive as was thought at the time (De Wolff & Van IJzendoorn, 1997), it nevertheless still takes a central role in attachment theory.

To summarize the above, we can conclude that Ainsworth contributed important elements of attachment theory, and that these in turn can in turn be, partly, attributed to Blatz.

CONCLUSION

Tracing back the origins of Attachment Theory, it is no longer fair to regard the theory as having been thought up by Bowlby with only some support of Ainsworth. While Bowlby, in the UK, studied the effects of mother-child separations in the 1930s and 1940s, Ainsworth in Toronto first studied under the guidance of Blatz, and then continued to work with him on the subject of security for many years. When Ainsworth started working with Bowlby at the Tavistock Clinic in London in 1950, she came well equipped. She brought with her extensive knowledge of Blatzian security theory, experience in designing instruments to measure security, and an awareness of the importance of a sensitive and responsive attitude towards children. It is difficult to imagine attachment theory without the notions of the secure base and exploration, the classification into secure and insecure attachment, maternal sensitivity, and attachment theory's prime instrument, the Strange Situation Procedure. Yet, these are the elements of attachment theory that we owe to Ainsworth and her use of all she had learned from Blatz over the years.

Up until Ainsworth's arrival at the Tavistock Clinic in 1950, Bowlby had been concerned mainly with physical separation studies. Only after he was introduced to ethology and to Ainsworth's (Blatzian) ideas in the early fifties, do we see many of the familiar ingredients of attachment theory emerge. In 1954, Ainsworth and Bowlby co-authored their first article, in which Ainsworth introduced the Blatzian term "secure

dependency". In 1956, in Bowlby and Ainsworth's second article, the term "secure dependency" had been replaced by a new term: "attachment". The reason given for this change of term was the connotation of "dependence" with the child's tie to the mother as a secondary drive, while Bowlby, by now embracing ethology and looking at the theory of evolution for explanations of attachment behavior, had started to realize that this tie was more likely to be a primary drive. In this same article we see the first attempt at categorizing security of attachment, at that point still called 'personality patterns' (Bowlby et al, 1956). In 1962, Ainsworth explained the notion of the secure base to Bowlby in a letter. In 1963, she started the Baltimore study in which she rated maternal sensitivity amongst other aspects of maternal behavior during home visits, and specifically studied the infants using the mother as a secure base during the Strange Situation Procedure, which enabled her to classify the attachment relationships of the children to their mothers into secure and insecure categories. In all of the above, we see the influence of Blatz. In fact, the SSP, attachment theory's prime instrument, clearly illustrates Ainsworth's 'merger' between Blatzian Security Theory and Bowlby's separation studies: first the child is being watched exploring, using the mother as a secure base (Blatz), then, after a brief absence of the mother, the reunion is being studied (Bowlby), after which the infant is classified as secure or insecure (Blatz).

However, having put the contributions to attachment theory by Ainsworth, and indirectly by Blatz, into the spotlight, the fact remains that Bowlby's role in developing attachment theory was paramount. His search for an explanation of the detrimental effects of mother-child separations eventually led him to ethology, which enabled him to lay evolutionary theory at the base of attachment theory. Apart from that, one might wonder if all that Ainsworth brought with her from Toronto would have found fertile soil, if it weren't for Bowlby's theory in the making. While developing attachment theory, Bowlby and Ainsworth were mostly thinking along the same lines, and when they weren't, one usually managed to eventually convince the other. Their scientific relationship can be characterized as one of mutual enrichment and stimulation. They highly respected one another and helped each other grow by acting as each other's sounding board for years. Their continuous exchanging of ideas through correspondence between continents eventually made it difficult to point out exactly who thought of what first.

However, despite her enormous respect for Bowlby, Ainsworth stated that throughout her career, Blatzian ideas had always been at the roots of her thinking (Meyers, 1969). It is true that Blatz's security theory hasn't had the impact and usage attachment theory has. Security theory is not widely used these days and Blatz is not well-known to present-day developmental psychologists. In developmental psychology histories, Blatz and security theory are lacking (Winestock, 2010). Several factors may be to blame for this. Through the years Blatz lectured on his theory but put little in

writing. He did not often refer to other authors or researchers, and so did not embed his theory in contemporary research or connect it to other trains of thought. In general, Blatz was more concerned with the practical use of the theory, regarding it as a guiding principle, than with getting it published (Meyers, 1969). But even though Blatz's security theory has not become as well-known or as much used in contemporary psychology as has attachment theory, the present analysis shows that it was not lost. On the contrary, on closer scrutiny it turns out that much of Blatz's work was incorporated in attachment theory. Bowlby, Ainsworth and, indirectly, Blatz, all contributed to attachment theory in important ways.

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All Ainsworth correspondence referred to resides in the Archives of the History of American Psychology at the University of Akron. All Bowlby correspondence referred to resides in the Wellcome Library in London, UK. All Harlow correspondence referred to resides in the Harlow Archives in Madison, Wisconsin, and was made available to us by Mrs Helen LeRoy. We are grateful to Mrs LeRoy for her assistance and hospitality.