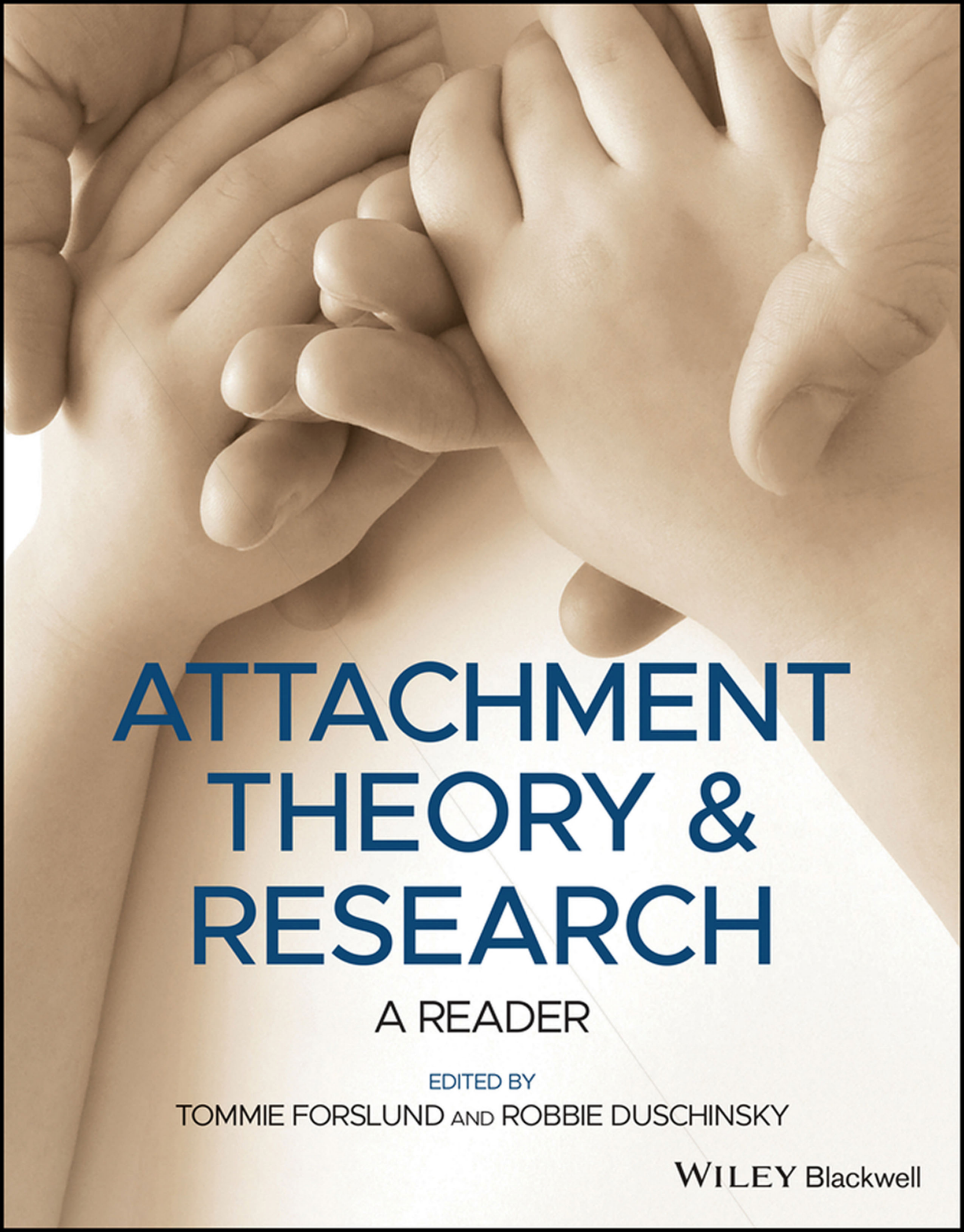

ATTACHMENT THEORY & RESEARCH

A READER

EDITED BY

TOMMIE FORSLUND AND ROBBIE DUSCHINSKY

WILEY Blackwell

Attachment Theory and Research

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Introduction

Tommie Forslund and Robbie Duschinsky

Attachment theory originates in the work of the British psychoanalyst and child psychiatrist John Bowlby and the Canadian clinical psychologist Mary Ainsworth. Bowlby sought a scientific explanation for the affectional bonds that children form with their caregivers, as manifested by attempts to seek and maintain proximity to and comfort by their caregivers, and by negative reactions following prolonged separations and losses. He eventually formulated the core tenets of attachment by drawing from multiple scientific disciplines, including ethology, psychoanalysis and cognitive psychology (Van der Horst, 2011). Bowlby's emphasis on the importance of early care may come across as self-evident today. However, it was anything but an orthodox position when he formulated attachment theory, at which time the importance of children's actual experiences with their caregivers were not sufficiently acknowledged (Bowlby, 1940, 1951, 1969/1982). Ainsworth, who collaborated closely with Bowlby, then extended his account by conducting extensive empirical observations of caregiver–child interaction, and by identifying individual differences in infants' expectations of the availability of their caregivers (Ainsworth et al., 1978; Van Rosmalen et al., 2015, 2016).

Already in their lifetime, their work influenced various aspects of policy to do with children. One important shift to which they contributed was recognition of the negative effects of hospitalization for children when, as was common policy, their caregivers were not permitted to visit or allowed to visit only very irregularly (Bowlby et al., 1952; Van der Horst & Van der Veer, 2009). Ideas from attachment theory have also been influential for parents, teachers, child protection services and policy-makers. Key concepts and ideas that entered into circulation included Bowlby's emphasis on the importance of early care for socioemotional development, his concern about major separations of infants from their caregivers, and his emphasis on the value of continuity in child–caregiver relationships. Ainsworth's ideas also gained recognition, particularly her identification of the importance of caregiver sensitivity for children's socioemotional development. She is also known for her account of the sensitive caregiver as a "secure base" from which the child can explore the environment, and as a "safe haven" to which the child can return for comfort and protection. For instance, the "First 1000 Days" policy agenda acknowledges the developmental importance of early care, and makes explicit reference to attachment theory (House of Commons Health and Social Care Committee, 2019). Further, preschool curricula often make reference to attachment theory and the importance of creating a secure base to facilitate children's exploration and, through this, their learning.

Since the passing of Bowlby and Ainsworth in the 1990s, ideas about attachment seem to have become more, rather than less, appealing and popular. One reason may be their alignment with current concerns about the importance of early experience for brain development (Gerhardt, 2014; Wastell & White, 2017). In a 2018 survey conducted by the British government of organizations working with children in need of help and protection, attachment theory was, by a large margin, cited as the most frequently used underpinning perspective (Department

Attachment Theory and Research: A Reader, First Edition. Edited by Tommie Forslund and Robbie Duschinsky.

for Education, UK, 2018). In social work policy and practice, Smith and colleagues (2017) have argued that attachment theory "has become the 'master theory' to which other ways of conceiving of childcare and of relationships more generally become subordinated" (p. 1606). In family courts, attachment theory and research is referenced in relation to children's best interests and used to inform decision-making (Keddell, 2017).

Yet the account of attachment theory and research that is available in much clinical and child welfare practice, as well as in popular and policy contexts, can sometimes be distorted or hazy (Furnivall et al., 2012, Reijman et al. 2018; Morison et al., 2020). For instance, popular accounts of attachment theory often miss Bowlby's (1988) qualifications of his earlier emphasis on the importance of early care: in his later work he placed emphasis on the potential for both continuity and change in psychological development. The popular account of attachment theory likewise misses that Ainsworth was using a technical definition of "sensitivity.". She meant the ability of a caregiver to perceive and to interpret accurately the signals and communications implicit in a child's behavior, and given this understanding, to respond to them appropriately and promptly. This meaning is not implied by uses of the word "sensitive" in ordinary language, which is typically assumed to mean warm and caring. Popular accounts of attachment theory also tend to overestimate the amount of information that can be gained from observations of individual persons' attachment quality (e.g. Granqvist et al., 2017). It has recently been highlighted that popular accounts of attachment theory sometimes influence family court decision-making, resulting in a large number of attachment scholars writing a consensus statement with recommendations for how to use attachment theory and research in decision-making concerning child protection and child custody (Forslund et al., 2021).

Already in 1968, Ainsworth wrote to Bowlby with concern: "attachment has become a bandwagon" – a popular and oversimplified cause. She specifically worried that a breakdown of communication was occurring between active attachment researchers and their publics, causing both excessive enthusiasm for the paradigm in some quarters and unfair rejections in others. Furthermore, appeals to attachment by practitioners often neglected what she considered essential about the paradigm, for instance by focusing on laboratory-based classifications of infants' attachment quality rather than on their perception of the caregiver's availability based on their actual experiences of care (see also Ainsworth & Bowlby, 1991).

What factors contributed to this bandwagon? One was that Bowlby was a great popularizer. He used television, radio, magazines and books published by the popular press to get his key messages out to clinicians, policy-makers and the wider public. However, Bowlby knowingly simplified his messages in these forums, and he often kept his more subtle conclusions and qualifications for his scholarly work. Indeed, he was explicit that in his popular writings he exaggerated matters; it was a kind of marketing strategy for his more complex theoretical reflections (see, e.g. Bowlby, 1987). While this strategy created a version of attachment theory that could circulate much more easily, it was in some important regards a misleading or even distorted picture of his conclusions.

The cut-price popular account of attachment that Bowlby set in motion was evocative, provocative, quite general and had the appearance of scientific credibility. This contributed to its flexibility, its urgency and its exceptionally wide appeal to various people concerned with family relationships and child development (Duschinsky, 2020). For instance, Bowlby's warnings about the dangers of child–mother separations were too imprecise. Major separations are indeed potentially harmful for young children (for a discussion, see, e.g. Forslund et al.,2021). However, in failing to qualify what kinds of separations he was writing about, Bowlby conveyed the impression that even ordinary separations, including limited use of day-care, was a risk factor for long-term harm. By contrast Ainsworth gave no public interviews, and she never wrote a magazine or popular article. Her energies were firmly focused on establishing the scientific basis of attachment as a research paradigm. With exceptions such as Patricia Crittenden (e.g. Spieker & Crittenden, 2018), and Peter Fonagy (e.g. Fonagy & Higgitt, 2004), the next generation of attachment researchers followed Ainsworth's approach of focusing on research and ignoring public understandings and misunderstandings of attachment. As Susan Goldberg (2000) observed, after Bowlby "many attachment researchers (myself included) have been reluctant to take on this responsibility" (p. 248). This left popular misunderstandings influenced by Bowlby's crudest statements too frequently unchallenged.

Half a century later, important theoretical papers and empirical studies conducted by the successors of Bowlby and Ainsworth are often stuck behind paywalls and in books or encyclopaedias that are out of print or otherwise out of reach of potential readers. It is far too difficult for practitioners and publics to access attachment theory and research, and some of the books specifically targeted for practitioner audiences contain serious inaccuracies (e.g. Pearce, 2016). It is no wonder, then, that the image in wider circulation differs from the views held by attachment researchers (Duschinsky et al., 2020). Additionally, the diversity of stances within attachment research is too little visible from the outside, which can make attachment theory seem monolithic and unchanging.

In fact attachment theory and research has become both more complicated and much more diverse over time, when compared with the original formulations of Bowlby and Ainsworth. For instance, Ainsworth's model with three patterns of attachment has been expanded to include a fourth category of attachment termed "disorganized/disoriented attachment" (Main & Solomon, 1986), as well as other characterizations in terms of dimensions (e.g. Fraley & Spieker 2003), additional categories (Landini et al., 2015), or scripts (Waters & Roisman, 2019). An "attachment disorder" category has also emerged within psychiatric nosology (Zeanah et al., 2016). Attachment measures have also been developed for children of various ages, for adolescents, and for adults, enabling research on attachment across the life span. Research on caregiver behavior thought important for children's attachment quality has also expanded to include various behaviors beyond sensitivity, including attention to the role of alarming caregiver behaviors (see Madigan et al. 2006). There has also been growing concern with the relationship between child attachment and child temperament (e.g. Belsky & Rovine, 1987). Attachment theory and research have also expanded from an initial focus on one "primary caregiver", to an interest in children's often multiple attachment relationships and their respective importance for child development (see Dagan & Sagi-Schwartz 2018). The initial emphasis on child–caregiver relationships has also expanded to include attachment relationships between romantic partners, and a variety of attachment-based interventions have been developed (see Mikulincer & Shaver 2018).

Over the decades the volume of empirical research has grown too large to be easily captured, in part due to the various developments and extensions of the theory, as well as the accumulation of empirical studies (Verhage et al., 2020). The *Handbook of Attachment,* edited by Jude Cassidy and Phil Shaver (2016), is a landmark attempt at integrating the current status of attachment theory and research, but the book stands at over a thousand pages, illustrating the challenge. Jeremy Holmes' and Arietta Slade's (2013) *Attachment Theory* also provides quite a comprehensive picture, but in the form of six edited volumes, it comes at a cost that renders it out of reach except for those with access to university libraries. Robbie Duschinsky's (2020) *Cornerstones of Attachment* (free to download from the Oxford University Press website) characterizes some of the key elements of attachment theory and research through a study of five nodal research groups, but is by no means a comprehensive survey.

For a variety of reasons then, over time the positions of classic and contemporary attachment researchers in their diversity and depth seem to have become lost in the public reception of the paradigm. Whilst there is much consensus, there are also relevant differences between researchers on several grounds, including but not limited to the following:

- What is attachment and how it should be conceptualized?
- How shall attachment be measured and are assessments valid across cultures?
- How does a child develop attachment relationships with various caregivers?
- What caregiver behaviors are important for child attachment?
- Are ideas about temperament compatible with attachment theory?
- To what extent do attachment experiences contribute to later development?
- What is the standing of the attachment disorder diagnosis?
- What are the implications of attachment theory and research for interventions?

Our intention with this book has been twofold. First, we wanted to provide a book that is sufficiently short and accessible, but which nonetheless gives an interesting introduction to the main tenets of attachment theory and its developments and diversity. Second, we wanted to increase the accessibility of some important but relatively inaccessible texts in attachment theory and research. We hope that this *Reader* offers some access to the richness and excitement of attachment theory and research, as well as to its diversity and current limitations. There is of course no way that a single volume can capture all that it should. Our selections have ultimately been oriented by three principles:

1. The first and most important principle has been to select important papers "off the beaten track." This includes papers never published in English, that are out of print or that are otherwise especially difficult to find. We have not included works already reprinted in other anthologies, or readily available for free online.
2. A second principle has been to select papers that offer something surprising that runs against common assumptions about attachment theory and research.
3. A third principle has been that in each chapter there should be something that will surprise or intrigue even a specialist.

Attachment Theory & Research: A Reader is intended as both a reference point and as an invitation to further exploration, with potential relevance for diverse readers including students, clinicians and other professionals, policy-makers and other interested individuals. Access to previously inaccessible and unpublished work should also make it relevant to researchers in developmental and social psychology. The book comprises fifteen papers and includes, for instance, an unpublished paper by John Bowlby, an unknown paper by Mary Ainsworth, and an important paper by Mary Main and Erik Hesse on disorganized attachment that has previously only been published in Italian. We have placed the papers in chronological order, largely coinciding with a progression from main tenets and classic attachment theory towards later research and selected applications and extensions.

In the first paper, John Bowlby (1960) discusses the concept of "separation anxiety" and lays out some of the theoretical proposals that would take center stage in his canonical trilogy *Attachment and Loss* (1969/1980). He takes as his starting point the anxiety that almost all children, from a certain age, show upon separation from their caregivers. He critiques contemporary views in which attachment and separation anxiety were seen as "secondary" to a child's concerns about being fed, or a consequence of distortions of "psychic energies." He then draws primarily on ethology to argue that attachment and separation anxiety are important "primary" phenomena that humans share with other animals, and which are mediated by "instinctual response systems" that have been retained in evolution due to their survival value. He also elaborates on the "protest-despair-detachment" sequence of behavior that he and his colleagues observed in response to being separated from caregivers and cared for by unfamiliar nurses on shift duty, and describes separation anxiety as a normative and inescapable corollary of attachment. He then critically discusses psychoanalytic theories of separation anxiety contesting the idea that children may be spoilt by excessive love and gratification. He argues that fear of separations and withdrawal of love can lead to problems with hostility and anxiety.

In the second paper, John Bowlby discusses the concepts of "anxiety," "stress," and "homeostasis," structured around the premise that we must consider basic biological principles in order to understand conditions that elicit anxiety and fear. He discusses both the nature of states held relatively stable by living organisms ("homeostasis"), and the nature of stable pathways along which development proceeds ("homeorhesis"), and argues that anxiety and fear are experienced when stable states are threatened by instability. Drawing from dynamic systems theory he elaborates on five types of homeostasis and homeorhesis, including three that are presumed to be older from an evolutionary perspective (physiological, morphological, ecological homeostasis) and two that he argues are more recent (representational, and person–environmental homeostasis). He then discusses the role of disturbance of representational and personal–environmental homeostasis in psychological growth as well as ill health. To this end, he discusses the concepts of "stress," "stressors" and "trauma," and emphasizes the importance of processes designed to restore homeostasis and homeorhesis. Finally, he elucidates similarities and differences between the concepts of "anxiety" and "fear," and the terms "security" and "safety," and discusses conscious and unconscious anxiety and fear. Given the longstanding interest in the link between caregiving, attachment quality, and child development, we believe that this paper is important to publish.

In the third paper, Mary Ainsworth (1984) presents the foundational ideas of attachment theory, summarizes research and discusses the future prospects of the paradigm. She discusses how the attachment system interacts with other behavioral systems, most notably the exploratory system. She then describes her own ground-breaking research regarding development of attachment and variations in attachment quality, focusing on the role of the caregiver's "sensitivity." To this end, she describes her development of the now classic strange situation procedure and differences between dyads classified as "secure," "avoidant" and "ambivalent/resistant." She also reviews research regarding attachment quality and subsequent development, elaborating on Bowlby's account on developmental pathways, and discusses loss of an attachment figure as a factor that may influence development. She considers the difference between healthy and unhealthy "mourning," and elaborates on Bowlby's notion of "incompatible models" of memory. This valuable presentation of Ainsworth's mature position on attachment theory and methodology, published in an obscure encyclopaedia, has remained unknown and, to the best of our knowledge, never cited.

In the fourth paper, Phillip Shaver, Cindy Hazan, and Donna Bradshaw (1988) discuss attachment in relation to romantic relationships. They note that research on romantic love has traditionally been descriptive and atheoretical, and argue for an attachment-based perspective informed by an evolutionary framework. They review a number of remarkable similarities between infant–caregiver attachment and adult romantic love, and apply Ainsworth's patterns of attachment to adult romantic relationships, describing two of their ground-breaking studies. Their discussion includes how self-designated attachment type was associated with participants'

descriptions of their most important love relationship, descriptions of the self and descriptions of their attachment relationships during childhood. They then discuss limitations of their own research, emphasizing the preliminary measures of attachment constructs, and outline future research avenues. Crucially, they draw upon Bowlby's and Ainsworth's reasoning and suggest that romantic love relationships should entail an integration of three behavioral systems: attachment, sexuality and caregiving, and discuss the potential dynamics between these systems. Finally, they discuss grief in response to loss of a romantic attachment figure, using attachment theory to explain why loss can be so painful.

In the fifth paper, Alan Sroufe (1989), one of the leaders of the Minnesota longitudinal study of attachment and adaptation, discusses the importance of children's early attachment experiences and relationships for the development of the self, for social behavior and for relationship functioning. He approaches the topic from an "organizational perspective" and the concept of "dyadic regulation." Infants are seen as constantly embedded in formative relationships with their caregivers, and the self is seen as a "social creation," with the experiences that make up infant–caregiver relationships preceding, giving rise to and organizing children's development. He provides a detailed discussion of different stages in the development of the self and of regulation as going from regulation by the caregiver, via coordinated sequences of behavioral interaction, to increasingly independent self-regulation. He then draws on Bowlby and describes this organization as manifested in "internal working models" of self and others that are complementary in nature and generalized to subsequent relationships. Finally, drawing on findings from the Minnesota longitudinal study, he discuss secure attachment in relation to the concept of autonomy, potency of self and the feeling of the self as worthy of care.

In the sixth paper, Mary Main and Erik Hesse (1992) discuss theory and research regarding the origins of disorganized/disoriented attachment. They discuss the predicament a child faces when the attachment system and the fear system are simultaneously activated by caregiver behavior, with children both pushed away from frightening stimuli and pulled toward their caregivers. In so doing, they describe disorganized/disoriented attachment and the approach–avoidance conflict that is thought to arise when a caregiver is associated by a child with alarm. They then discuss links between unresolved traumatic experiences, as measured by lapses in monitoring of reasoning and discourse upon discussing traumatic loss and abuse in their interview instrument the "Adult Attachment Interview," and momentary "frightened" caregiving behavior, focusing on non-maltreating caregivers. Finally, they discuss adult unresolved/disorganized states of mind, and infant disorganized/disoriented attachment, in relation to a propensity for "dissociation" and "trance-like states." This paper is perhaps Main and Hesse's most detailed account of the psychological mechanisms inferred to underpin disorganized attachment and unresolved states of mind. However it has previously only been published in Italian.

In the seventh paper, Owens and colleagues (1995) present the results of an early empirical study regarding the concordance between adults' state-of-mind regarding attachment to caregivers and attachment quality to romantic partners. They discuss Freud's "prototype hypothesis," which Bowlby partly carried forward through his notion of "monotropy," and which suggests that early working models are to an extent generalized to subsequent relationships. Yet, they also note that Bowlby argued that internal working models are amenable to change following new experiences, and that we tend to have multiple attachment relationships, including more than one parent and romantic partners. They then pose important questions regarding how different working models, from different types of relationships, may be associated with and influence one another. They measure state-of mind regarding caregivers using the Adult Attachment Interview, and use a similar interview-based instrument – the Current Relationships Interview – to examine romantic attachment quality. They present and discuss their results, which challenge the prototype hypothesis, and provide a detailed discussion of important future research avenues.

In the eighth paper, Phillip Shaver (2006) discusses theory and research pertaining to the "dynamics of romantic love" and, in doing so, follows up on developments regarding their theory regarding the interplay between attachment, caregiving and sex. He critiques attempts to conceptualize romantic love primarily as affects, feelings and attitudes, and argues for the advantages of their conceptualization in terms of behavioral systems. He then addresses the challenge of how to best integrate the three systems, acknowledging that the theory may have failed to include the exploratory and affiliative systems. Also, he discusses the tendency to bestow loved ones with precious and irreplaceable qualities in relation to the caregiving system. He reviews both research examining associations between the three systems and research using priming. While many of their hypotheses have been corroborated, he argues that much is still uncertain regarding the origins of the interrelations between the systems and their dynamics, and elaborates on future research that may help resolve these issues.

In the ninth paper, Marinus van IJzendoorn and Marian Bakermans-Kranenburg (2012) discuss attachment theory in relation to temperament theory and emphasize a recent rapprochement, with caregiving acknowledged as influencing children's temperamental characteristics and temperament as influencing caregiving behavior. They refute an early hypothesis that variations in attachment behavior can be explained by temperamental characteristics and discuss alternative conceptualizations that focus on transactions. They give particular attention to Belsky's differential susceptibility model, which suggests that some children have a higher constitutional susceptibility to environmental influences than other children. In contrast to the more one-dimensional stress-diathesis model, this susceptibility is seen as "for better or worse," with genetically susceptible children faring worse than other children in suboptimal environments, but better than other children in enriched environments. They also apply the differential susceptibility model to caregiving, and discuss whether differential susceptibility may extend to caregiving practices.

In the tenth paper, Charles Zeanah and Mary Margaret Gleason (2015) review theory and research regarding "attachment disorders." They describe two distinct disorders: reactive attachment disorder (RAD), in which children display absence of attachment behavior, and disinhibited social engagement disorder (DSED), in which children display a lack of social reticence and show indiscriminate social behavior toward unfamiliar adults. While both disorders arise due to social neglect, they argue that their differentiation is motivated by differences in presentations, courses and correlates, and responsiveness to intervention. They also elaborate on differences between attachment disorders and patterns of attachment and discuss child vulnerability factors, since social neglect alone is not sufficient to explain the development of attachment disorders. They also discuss clinical correlates and comorbidity, differentiating RAD from autism spectrum disorder and DSED from ADHD (Attention Deficit Hyperactivity Disorder), and discuss attachment disorders in relation to internalizing and externalizing problems. They also discuss the effects of deprivation on neurobiology, linking deprivation to structural and functional deviations in brain development. Finally, they discuss research on interventions, which have largely focused on adoption, and discuss different responsiveness between RAD and DSED.

In the eleventh paper, Matt Woolgar and Emma Baldock (2015) present the results of a study examining if there is a tendency to overdiagnose "attachment disorders" and "attachment problems" among adopted and looked-after children. Using one hundred consecutive referrals to a specialist unit in the UK, they examine whether attachment disorders and problems are identified in a higher extent in community-based referral letters than by specialists, and whether overdiagnosing of attachment disorders and attachment problems is at the expense of diagnosing more common problems such as ADHD and ODD (Oppositional Defiant Disorder). They elaborate on the potential allure of attachment disorders and attachment problems, and argue that the more common diagnoses should be considered as "first line diagnoses." One reason for this, they argue, is that whereas there is good access to evidence-based interventions for these more common problems, specific interventions for attachment disorders and problems are still at an early stage. Their findings not only suggest that there is a problem of overdiagnosing attachment disorders and problems, but also that these phenomena are ill understood. Based on their own findings and those of others, they then argue that the current diagnostic system for attachment problems is inadequate to meet the needs of clinicians, that there is confusion about an appropriate diagnostic framework and a lack of agreed upon standards for assessing attachment disorders.

In the twelfth paper, Ashley Groh and colleagues (2017) summarize and present the results of a recent series of meta-analyses on the association between child–mother attachment quality and (1) social competence, (2) internalizing problems, (3) externalizing problems and (4) temperament. They also examine whether effects endure or diminish over time, and if effects vary systematically depending on factors such as type of sample, child sex and socio-economic factors. They discuss results concerning differences between children classified as secure and insecure as well as regarding the four attachment categories, including some unexpected results regarding avoidant and resistant attachment. While the meta-analyses present robust support for the role of attachment quality in child development, they also elaborate on a number of empirical issues in need of inquiry. For instance, they note that the effects of attachment quality are small to moderate by Cohen's criteria. They also highlight that there is a scarcity of research on mediating mechanisms. They close by discussing potential problems with examining attachment in the strange situation in the form of four mutually exclusive categories.

In the thirteenth paper, Mary Dozier and Kristin Bernard (2017) describe their attachment-based intervention; the "Attachment and Biobehavioral Catch-up." They review theory and research on the importance of caregiver sensitivity for infants' development of biological and behavioral regulation, and emphasize the caregiver as a crucial co-regulator. They then describe their own ten-session home-visit programme the ABC, which was developed

with a focus on caregivers at risk for inadequate and problematic care (e.g. abuse and neglect). They discuss how the ABC is designed to help caregivers (1) enhance nurturing behavior, (2) follow their children's leads and (3) reduce frightening behavior, and describe the importance of frequent and positive "in the moment" comments by the parent coach. They then review research showing positive effects of the ABC on caregiving sensitivity as well as on infants' attachment quality and self-regulatory ability, and describe an adaptation of the ABC for caregivers with toddlers. Finally, they discuss the need for further examination of the effectiveness of the ABC when implemented in the community.

In the fourteenth paper, Fabien Bacro and colleagues present theory and research on children's multiple attachment relationships and representations. They note that there is still a lack of consensus regarding the nature, structure and relative importance of each attachment relationship in children's development, and emphasize that parental roles have become more egalitarian in many countries. They then compare three theoretical models regarding how attachment relationships may become organized and influence child development: the hierarchical model based on Bowlby's notion of monotropy; the integrative model, in which different attachment relationships are thought to become integrated; and the independent model, in which different relationship models are seen as exerting independent effects on child development. In doing so, they review research examining whether children show preferences for certain caregivers, to what extent there is concordance in children's attachment quality with their mothers and fathers, and the respective influence of attachment to mothers and fathers for child development. Based on the increased number of children exposed to parental divorce they also review research regarding how different family contexts may influence children's attachment representations, and highlight the importance of the parental relationship post separation. Finally, they discuss research regarding placement trajectories and attachment quality in children placed in foster care, focusing on the risk for unstable placements and the need to repeatedly create new attachment relationships. They emphasize recent research by Bacro and colleagues who linked multiple placements to an increased risk for externalizing problems with disorganized attachment acting as a mediating mechanism. This chapter, which was written for the current anthology, includes research that has to date only been published in French.

In the fifteenth paper, Mary True presents theory and research on disorganized attachment and its origins, focusing on cultural differences in caregiving practices and the transferability of the strange situation procedure between cultures. She focuses particularly on her and her colleagues' research with Dogon mothers and infants in Mali, and presents new analyses motivated by advances in theory development. She describes Main and Hesse's theory of frightening/frightened caregiver behavior, and Lyons-Ruth's theory of dysfluent communication, and how her and her colleagues' initial findings were in line with both these "relational" theories of disorganization. However, she also notes that maternal sensitivity predicted attachment security in a "well baby exam" but not in the strange situation procedure, and that she and her colleagues did not observe any avoidant infants in the strange situation. She then contrasts the "proximal" caregiving practices of the Dogon with the "distal" caregiving practices in Western countries, and raises the question of whether the Dogon infants may have experienced overstress in the strange situation due to the rarity of experiencing such separations. She then presents and discusses her new analyses regarding the relational hypothesis and the overstress hypothesis, together with a meta-analysis examining whether the frequency of avoidant classifications is lower in Africa. The chapter was written for the current anthology.

Suggested Further Reading

R. Duschinsky (2020). *Cornerstones of attachment research*. Oxford: Oxford University Press. Free to download here: https://global.oup.com/academic/product/cornerstones-of-attachment-research-9780198842064

An in-depth appraisal of the respective contributions of five important research groups that have shaped theory and research on attachment: those led by Bowlby, Ainsworth, Main and Hesse, Sroufe and Egeland and Shaver and Mikulincer.

L. A. Sroufe, B. Egeland, E. A. Carlson, & W. A. Collins (2009). *The development of the person: The Minnesota study of risk and adaptation from birth to adulthood*. Guilford.

A detailed account of the classic Minnesota longitudinal study, including its theoretically driven focus on important developmental at different time-points tasks and its key findings. A summary paper was also published by Sroufe as: L. A. Sroufe (2005). Attachment and development: A prospective, longitudinal study from birth to adulthood. *Attachment & Human Development*, *7*(4), 349–367.

Jeremy Holmes and Arietta Slade (2018). *Attachment in therapeutic practice*. SAGE.
One of the best books discussing the implications of attachment theory and research for psychotherapeutic practice.

Vivien Prior & Danya Glaser (2006). *Understanding attachment and attachment disorders: theory, evidence and practice*. Jessica Kingsley Press.
The best existing textbook outlining attachment theory and research. However, the book is over ten years old, so there are important subsequent developments not covered here.

Howard Steele and Miriam Steele (Eds.). (2018) *Handbook of attachment-based interventions*. Guilford.
A very helpful overview of the multiplicity of attachment-based interventions and evidence regarding their respective effectiveness.

Omri Gillath, Gery C. Karantzas, & R. Chris Fraley (2016). *Adult attachment: A concise introduction to theory and research*. Academic Press.
A comprehensive overview of theory and findings from the social psychological tradition of attachment research, set out in an accessible Question & Answer format.

K. E. Grossmann, K. Grossmann, & E. Waters (Eds.). (2006). *Attachment from infancy to adulthood: The major longitudinal studies*. Guilford Press.
A good overview of classic attachment research, with chapters presenting and discussing key findings from the first wave of major longitudinal studies to include attachment assessments.

Patricia Crittenden (2016). *Raising parents*, 2nd edn. Routledge.
A lively starting point for engaging with the Dynamic Maturational Model of attachment and its clinical applications. An anthology of Crittenden's papers is also available: A. Landini, C. Baim, M. Hart, & S. Landa (Eds.). (2015). *Danger, development and adaptation: seminal papers on the Dynamic-Maturational Model of Attachment and Adaptation*. Brighton, UK: Waterside Press.

David Howe (2011). *Attachment across the lifecourse*. Palgrave Macmillan.
An excellent overview of the findings of attachment research as relevant to different periods in the human life course. A strength is that the book is written clearly, and can easily be read by a non-specialist. It does not generally take much of a critical perspective on the research or theory.

Robert Karen (1994). *Becoming attached*. Oxford University Press.
A readable and engaging introduction to the first generation of attachment researchers. Less scholarly, more journalistic.

Frank van der Horst (2011). *John Bowlby: From psychoanalysis to ethology: Unravelling the roots of attachment theory*. Blackwell .
A meticulous intellectual biography of John Bowlby, covering his intellectual journey towards ethology as a main source of theoretical inspiration.

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1

Separation Anxiety[1]

John Bowlby

Observations of Young Children

Since 1948 the Tavistock Child Development Research Unit has been concerned with recording the manifest responses which commonly occur when children between the ages of about 12 months and 4 years are removed from the mother figures[2] to whom they are attached and remain with strangers. Preliminary papers and a scientific film have been published (Robertson & Bowlby, 1952; Robertson, 1953a, 1953b; Bowlby, 1953, 1954) and a comprehensive report by James Robertson and the writer is in preparation. In it we shall draw not only on Robertson's own observations and those of other workers reported in the scientific literature, notably those of Burlingham and Freud (1942, 1944), and Heinicke (1956), but also on reports given us by mothers and nurses with first-hand experience of the problem. Since there is a high consensus in these reports we regard it as firmly established empirically that all children of this age, except those who have already suffered considerable deprivation of maternal care or are seriously ill, react to the experience with shock and anxiety. Our confidence in the validity of these observations is something we wish to emphasize since it is not uncommon for those whose theories lead to expectations of a different kind to cast doubt on them. In our view it is the theories which are mistaken, not the observations, and it is with the theoretical issues raised by these data that this paper is concerned.

It is evident, however, that the nature and dynamics of the responses to the rupture of a social bond cannot be understood until there is some understanding of the nature and dynamics of the bond itself. It was because of this that in a recently published paper (Bowlby, 1958) I discussed how best the nature of the young child's tie to his mother could be conceptualized. In it I advanced the view that instead of the tie being motivated by a secondary drive or one wholly based on orality, which are the most commonly held views today, it may be mediated by a number of instinctual response systems which are partially independent of one another and which wax and wane in activity at different periods of the infant's and young child's life. I suggested that much psycho-analytic theory, by concentrating attention too narrowly either on the meeting of 'physiological' needs (e.g. for food and warmth) or on orality, may have led to the picture as a whole being seen out of perspective; and that other responses, particularly clinging and following which seem to reach their zenith in the second and third years, require far more attention than they have yet been given.

The reasons leading me to advance these views are clinical: traditional theory has seemed to me to account neither for the intense attachment of child to mother-figure which is so conspicuous in the later months of the first year and throughout the second and third years of life, nor for the dramatic responses to separation from her

Source: John Bowlby, "Separation anxiety," pp. 89–113 from *International Journal of Psychoanalysis* 41:1 (1960).

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which are the rule in these years. A formulation, based on a theoretical framework stemming from modern instinct theory, has seemed to me more promising. It is the line of thought begun in the previous paper that I shall pursue further in this one.

First let us consider the data.

Our observations[3] concern healthy children of 15 to 30 months admitted to a hospital, perhaps for investigation or elective surgery, or to some other residential institution and there cared for in traditional ways. By traditional ways we mean that the child is handled by a succession of strange nurses, mainly students, who will variously bathe, feed, and change him. The nurses will be on shift duty, and often within a few weeks most will have moved to other departments. No matter how kind each may be in her fragment of care, there will be no nurse whom he can come to know or with whom he can enter into a stable relationship. He may see his mother for a short time each day, but it may be less often. In this context a child of 15 to 30 months who has had a normal relationship to his mother and has not previously been parted from her will commonly show a predictable sequence of behaviour. This sequence can usefully be broken into three phases according to what attitude to his mother is dominant. We describe these phases as those of protest, despair, and detachment.[4] Though in presenting them it is convenient to differentiate them sharply, it is to be understood that in reality each merges into the next, so that the child may be for days or weeks in a state of transition from, or alternation between, one phase and another.

The initial phase, that of *Protest*, may last from a few hours to a week or more. During it the young child appears acutely distressed at having lost his mother and seeks to recapture her by the full exercise of his limited resources. He will often cry loudly, shake his cot, throw himself about, and look eagerly towards any sight or sound which might prove to be his missing mother. All his behaviour suggests strong expectation that she will return. Meantime he is apt to reject all alternative figures who offer to do things for him, though some children will cling desperately to a nurse.

During the phase of *Despair*, which succeeds protest, his preoccupation with his missing mother is still evident, though his behaviour suggests increasing hopelessness. The active physical movements diminish or come to an end, and he may cry monotonously or intermittently. He is withdrawn and inactive, makes no demands on the environment, and appears to be in a state of deep mourning. This is a quiet stage, and sometimes, clearly erroneously, is presumed to indicate a diminution of distress.

Because the child shows more interest in his surroundings, the phase of *Detachment* which sooner or later succeeds protest and despair is often welcomed as a sign of recovery. He no longer rejects the nurses, accepts their care and the food and toys they bring, and may even smile and be sociable. This seems satisfactory. When his mother visits, however, it can be seen that all is not well, for there is a striking absence of the behaviour characteristic of the strong attachment normal at this age. So far from greeting his mother he may seem hardly to know her; so far from clinging to her he may remain remote and apathetic; instead of tears there is a listless turning away. He seems to have lost all interest in her.

Should his stay in hospital or residential nursery be prolonged and should he, as is usual, have the experience of becoming transiently attached to a series of nurses each of whom leaves and so repeats for him the experience of the original loss of his mother, he will in time act as if neither mothering nor contact with humans had much significance for him. After a series of upsets at losing several mother-figures to whom in turn he has given some trust and affection, he will gradually commit himself less and less to succeeding figures and in time will stop altogether taking the risk of attaching himself to anyone. Instead he will become increasingly self-centred and, instead of directing his desires and feelings towards people, become preoccupied with material things such as sweets, toys, and food. A child living in an institution or hospital who has reached this state will no longer be upset when nurses change or leave. He will cease to show feelings when his parents come and go on visiting day; and it may cause them pain when they realize that, although he has an avid interest in the presents they bring, he has little interest in them as special people. He will appear cheerful and adapted to his unusual situation and apparently easy and unafraid of anyone. But this sociability is superficial: he appears no longer to care for anyone.

We have had some difficulty in finding the best term to denote this phase. In previous papers and in the early drafts of this one the term 'denial' was used. It gave rise to many difficulties, however, and is now abandoned in favour of the more purely descriptive term 'detachment'. An alternative is 'withdrawal', but this has two disadvantages for my purpose. In the first place there is a danger that it might convey the picture of an inactive child withdrawn from the world, a picture that is the opposite of what often obtains. In the second, in psycho-analytic writing it is commonly associated with libido theory and the idea of instinct as a quantity of energy which can be withdrawn, a model I am not using. Not only does the term 'detachment' have neither of these disadvantages, but

it is a natural counterpart of 'attachment'. The nature of the defence process, or processes, that give rise to it is of course a matter for detailed study. In an earlier publication (Bowlby, 1954) I have discussed briefly its relation to repression and I hope at a later date to give this further attention.

Returning now to the empirical data, I wish to emphasize that the behaviour seen in the phases of Protest and Despair is not, as is sometimes alleged, confined to children whose relations to their mothers are already impaired. Though we have no large series of well-observed cases to quote, we are satisfied that there is clear evidence that it occurs in children whose previous relationships would be judged to have been anything between excellent and fairly unfavourable. It appears to be only in children whose relationships are already severely impaired, and who may therefore already be in a phase of Detachment, that such behaviour is absent.

In examining the theoretical problems raised by these observations it is convenient to consider them with reference to these three phases of behaviour. The phase of Protest raises the problem especially of separation anxiety; Despair that of grief and mourning; Detachment that of defence. Each of them is central to psychoanalytic theory and will therefore need detailed discussion – the first in this paper, the second and third in succeeding ones. The thesis to be advanced is that the three types of response – separation anxiety, grief and mourning, and defence – are phases of a single process and that when treated as such each illumines the other two.

Often in the literature they have been considered piecemeal. The reason for this appears to be the inverted order in which their psycho-pathological significance was discovered: for it was the last phase which was recognized first, and the first last. Thus the significance of defence, particularly repression, was realized fully by Freud in the earliest days of his psycho-analytic work and provides the basis of his classical theorizing: his first paper on the subject is dated 1894 (Freud 1894). His grasp of the roles of grief and separation anxiety on the other hand, although not wholly absent in his earlier work, was none the less fragmentary. Thus, although early alive to the place of mourning in hysteria and melancholia (Freud, [1897] 1954), twenty years were to elapse before, in *Mourning and Melancholia* (1917), he gave it systematic attention. Similarly in the case of separation anxiety: although in the *Three Essays on Sexuality* (1905) he gave it a paragraph (p. 224), and in the *Introductory Lectures* (1917) three pages (pp. 339–341), it is not until 1926 that in his important late work, *Inhibitions, Symptoms and Anxiety* (Freud, 1926), he gives it the central place in what was to be his final theory of anxiety. 'Missing someone who is loved and longed for' he affirms, 'is the key to an understanding of anxiety' (pp. 136–137), and it is on this datum that the whole argument of his book rests.

The reason for this inverse recognition of the three phases is clear: always in the history of medicine it is the end result of a pathological sequence which is first to be noted. Only gradually are the earlier phases identified, and it may be many years before the exact sequence of the whole process is understood. Indeed it was understanding the sequence which baffled Freud longest. Does defence precede anxiety, or anxiety defence? If the response to separation is pain and mourning, how can it also be anxiety? (Freud, 1926, pp. 108–109 and 130–131). It can now be seen that during the thirty years of his main psycho-analytic explorations Freud traversed the sequence backwards, from end result to initial stage. Not until his seventieth year did he clearly perceive the source and course of the processes to which he had devoted half a lifetime of study. The effects on psychoanalytical theorizing have inevitably been confusing.

By 1926 a substantial corpus of psycho-analytic theory was already being taught. As regards anxiety, castration anxiety and superego anxiety were cornerstones of thought and practice in Vienna and elsewhere, whilst Melanie Klein's hypothesis relating anxiety to aggression had recently been formulated and, linked to the concept of the death instinct, was soon to become a key concept in a significant new system. The full weight of Freud's ideas on separation anxiety and its relation to mourning came too late to influence the development of either of these two schools of thought.

Moreover, apart from the prophetic early reference by Hug-Hellmuth ([1913] 1919) and a brief word by Bernfeld ([1925] 1929), some years were to pass before the clinical papers drawing attention to the pathogenic significance of separation experiences were published. Some of the earliest, by Levy (1937), Bowlby (1940, 1944), and Bender and Yarnell (1941), presented empirical evidence suggesting an aetiological relationship between certain forms of psychopathic personality and severely disrupted mother–child relationships. At about the same time, Fairbairn ([1941] 1952, [1943] 1952) was basing his revised psycho-pathology on separation anxiety, having been preceded by some years by Suttie (1935) and to be followed a few years later by Odier ([1948] 1956); whilst Therese Benedek (1946) was describing responses to separation, reunion and bereavement which were to be observed in adults during the war. Meanwhile the firsthand observations of Dorothy Burlingham and Anna Freud (1942, 1944) of how young children respond to separation were being recorded, and Spitz (1946) was about to shock those who had eyes to see with his account of extremely deprived babies. Despite all this work by qualified analysts, however, and

a number of important papers by Goldfarb (1943) and others, separation anxiety has never gained a central place in psycho-analytic theorizing. Indeed Kris (1956), writing as a participant in the Viennese scene, remarked recently how, when in 1926 Freud advanced his views regarding separation anxiety, 'there was no awareness amongst analysts … to what typical concrete situations this would apply. Nobody realized that the fear of losing the object and the object's love were formulae to be implemented by material which now seems to us self-evident beyond any discussion.' He acknowledged that only in the past decade had he himself recognized its significance, and could have added that even today there are schools of analytic thought which deny its importance. The continuing neglect of separation anxiety is well illustrated by a recent and authoritative survey of 'the concept of anxiety in relation to the development of psycho-analysis' (Zetzel, 1955) in which it is not once mentioned.

In the event, it is clear, some of the ideas Freud advanced in *Inhibitions, Symptoms and Anxiety* fell on stony ground. This was a pity, since in that book, written at the end of his professional life, he was struggling to free himself of the perspective of his travels – defence, mourning, separation anxiety – and instead to view the sequence from his new vantage point: the priority of separation anxiety. In his concluding pages he sketches out a new route: anxiety is a reaction to the danger of losing the object, the pain of mourning to the retreat from the lost object, defence a mode of dealing with anxiety and pain. This is the route we shall be following.

Principal Theories

No concept is more central to psycho-analytical theory than the concept of anxiety. Yet it is one about which there is little consensus of opinion, which accounts in no small measure for the divisions between different schools of thought. Put briefly, all analysts are agreed that anxiety cannot be explained simply by reference to external threat: in some way processes usually thought of as internal and instinctive seem to play a crucial role. But how these inner forces are to be conceptualized and how they give rise to anxiety, that has always been the puzzle.

As a result of this state of affairs we find, when we come to consider how analysts conceive separation anxiety, some widely differing formulations; for each formulation is strongly influenced by the particular outlook regarding the nature and origin of anxiety which the analyst happens to have. Moreover, the place given to separation anxiety within the wider theory of anxiety varies greatly. For some, like Hermann and Fairbairn, separation anxiety is the most important primary anxiety; for others, like Freud in both his earlier and later work, it is only the shortest of steps removed from being so; for others again, like Melanie Klein and her associates, separation anxiety is deemed to be secondary to and of less consequence than other and more primitive anxieties. This being the present state of thought, inevitably the discussion has to touch on all aspects of the theory of anxiety. Yet it will be my plan to restrict the wider discussion as far as possible in order to concentrate on the task in hand, namely to understand separation anxiety and its relation to mourning.

A review of the literature shows that there have been six main approaches to the problem of separation anxiety; three of them are the counterparts, though not always the necessary counterparts, of theories regarding the nature of the child's attachment to his mother. In the order in which they have received attention by psychoanalysts, they are: –

i. The first, advanced by Freud in *Three Essays* (1905), is a special case of the general theory of anxiety which he held until 1926. As a result of his study of anxiety neurosis (1894) Freud had advanced the view that morbid anxiety is due to the transformation into anxiety of sexual excitation of somatic origin which cannot be discharged. The anxiety observed when an infant is separated from the person he loves, Freud holds, is an example of this, since in these circumstances the child's libido remains unsatisfied and undergoes transformation. This theory may be called the theory of *Transformed Libido*. It resembles in many ways the sixth main approach, which is the one adopted here.
ii. The anxiety shown on separation of young children from mother is a reproduction of the trauma of birth, so that birth anxiety is the prototype of all the separation anxiety subsequently experienced. Following Rank ([1924] 1929) we can term it the *Birth-Trauma* theory. It is the counterpart of the theory of return-to-womb craving to account for the child's tie.
iii. In the absence of the mother the infant and young child is subject to the risk of a traumatic psychic experience, and he therefore develops a safety device which leads to anxiety behaviour being exhibited when she leaves him.

Such behaviour has a function: it may be expected to ensure that he is not parted from her for too long. I shall term this the *Signal* theory, employing a term introduced by Freud (1926) in *Inhibitions, Symptoms and Anxiety*. It is held in three variants according to how the traumatic situation to be avoided is conceived. They are: (*a*) that the traumatic situation is an economic disturbance which is caused when there develops an accumulation of excessive amounts of stimulation arising from unsatisfied bodily needs; (*b*) that it is the imminence of a total and permanent extinction of the capacity for sexual enjoyment, namely aphanisis (Jones, 1927). (When first advanced by Jones as an explanation of anxiety, the theory of aphanisis was not related to the anxiety of separation; two years later, however, he sought to adapt it so as to fit in with Freud's latest ideas). Finally (*c*), there is the variant proposed by Spitz (1950) that the traumatic situation to be avoided is one of narcissistic trauma. It should be noted that in the history of Freud's thought the Signal theory stems from, and is in certain respects the counterpart of, the theory which explains the child's tie to his mother in terms of secondary drive.

iv. Separation anxiety results from the small child, owing to his ambivalence to his mother, believing when she disappears that he has eaten her up or otherwise destroyed her, and that in consequence he has lost her for good. Following Melanie Klein ([1935] 1952) we can call it the theory of *Depressive Anxiety*.

v. Following the projection of his aggression, the young child perceives his mother as persecutory: as a result he interprets her departure as due to her being angry with him or wishing to punish him. for these reasons whenever she leaves him he believes she may either never return or do so only in a hostile mood, and he therefore experiences anxiety. Again following Melanie Klein, this can be termed the theory of *Persecutory Anxiety*.

vi. Initially the anxiety is a primary response not reducible to other terms and due simply to the rupture of the attachment to his mother. I propose to call it the theory of *Primary Anxiety*. It is the counterpart to theories which account for the child's tie to his mother in terms of component instinctual responses. It has been advanced by James (1890), Suttie (1935) and Hermann (1936), but has never been given much attention in analytic circles.

The hypothesis I shall be adopting is the sixth, since it stems directly from my hypothesis that the child is bound to his mother by a number of instinctual response systems, each of which is primary and which together have high survival value. Soon after birth, it is held, conditions of isolation tend to activate crying and a little later tend to activate both clinging and following also; until he is in close proximity to his familiar mother – figure these instinctual response systems do not cease motivating him. Pending this outcome, it is suggested, his subjective experience is that of primary anxiety; when he is close to her it is one of comfort.

Such anxiety is not to be conceived merely as a 'signal' to warn against something worse (though it might subsequently come to have this function). Instead, it is thought of as an elemental experience and one which, if it reaches a certain degree of intensity, is linked directly with the onset of defence mechanisms. It is because of this, and because I wish to distinguish it sharply from states of anxiety dependent on foresight, that I have termed it Primary Anxiety.[5]

Although I believe states of primary anxiety due to separation to be among the most frequent and pathogenic of such states, it is postulated that primary anxiety will arise in other circumstances also – perhaps whenever any instinctual response system is activated but not terminated. Primary anxiety due to separation seems likely, therefore, to be but one example of a common condition. It has, however, several special features. Not least of these is its specially close linkage in infants and young children to the experiences of fright and fear. When frightened, infants and young children look to their mother for security and if they fail to find her are doubly upset: both comfort and security are missing.

It is interesting, though by no means easy, to compare the theory of primary anxiety with Freud's two theories. The similarity to his original one of Transformed Libido is close. Although on occasion Freud spoke as though libido could only be transformed into anxiety after it had first been repressed, this does not appear to be basic to his formulation. Indeed, in his discussion of the conditions which lead anxiety to become pathological the process inculpated is repression (Freud, 1909, p. 26); in the absence of repression, we may therefore infer, there would still be anxiety, but it would be within normal limits. If this is a correct reading, then the main difference appears to be that, whereas in the theory advanced here primary anxiety is an immediate consequence of the persistent activation without termination of certain instinctual response systems, in Freud's theory anxiety is conceived as being the result of a 'transformation' which the libido undergoes.

The theory of primary anxiety appears to differ more from Freud's second theory, that of Signal Anxiety, than from his first. The principal difference here is that Freud postulates that a fairly complex process of motor learning

must have occurred. The other difference, though it is not logically necessary for his position, is that he postulates also some awareness in the infant of causal relationships. The theory advanced here on the other hand makes no such assumptions and, instead, sees the anxiety as primitive and dependent only on simple orientational learning. Nevertheless, it must be remembered, Freud also postulated the existence of a primitive biologically based anxiety which is evoked by separation, and it is therefore useful to compare the two views. In Freud's theory this primitive anxiety is conceived as resulting from the instincts serving the infant's *bodily needs*, e.g. for food, becoming active and not being satisfied: in the theory here advanced it is conceived as resulting from the *instinctual response systems underlying attachment behaviour* (notably crying, following, and clinging) becoming activated and remaining so. Thus in both cases the primitive anxiety is conceived as resulting from instinctual systems which, whilst gratified by the mother's actions or presence, remain ungratified in her absence; or, in terms of the conceptual framework used here, from instinctual responses which, whilst terminated by the mother's actions or presence, remain unterminated in her absence. The essential difference therefore lies in the nature of the instinctual systems postulated as being involved.

At first sight the theory of primary anxiety may also seem to have something in common with the Birth Trauma theory. For instance, some might argue that, if anxiety is experienced at birth, it is no more than one example of primary anxiety arising from separation. However, this seems to me improbable since, like Freud (1926, pp. 130–131), I am not satisfied that true separation anxiety is present in the earliest months.[6] The birth trauma theory is not regarded as having explanatory value.

Whilst the theory of primary anxiety postulates that separation anxiety is itself an unlearnt and biologically based anxiety, it is far from blind to the existence and pathogenic importance of anxieties which are dependent on learning and anticipation. In the human it seems useful to distinguish at least two main forms of anticipatory behaviour – that based on primitive forms of learning, such as conditioning, and that based on memory organized by means of symbols. As soon as infants can be conditioned, which is very early, they can acquire a simple form of anticipatory behaviour and, in so far as the events to which they are conditioned are disagreeable, such for example as pain, hunger, or lack of human contact, they may be supposed to experience anxiety. This I shall term *Conditioned Anxiety*. Cognitively, it is still rather a primitive form of anxiety and in many ways more closely resembles primary anxiety than the form next to be described. Later, when the infant develops his capacity for using symbols and can thereby construct a world of objects existing in time and space and interacting causally, he is able to develop some measure of true foresight. Should the foreseen events be of a kind he has learned are disagreeable, he will once again experience anxiety. This I shall term *Expectant Anxiety*. Once this level of psychic organization is reached many kinds of danger, real and imaginary, may be foreseen and responded to. For example, whatever may occur at more primitive levels, at this level both persecutory and depressive anxieties play a crucial role; for anything which leads the child to believe he either has destroyed or alienated his mother, or may do so, cannot fail to exacerbate his expectant anxiety of temporary or permanent separation.

It is to be noted that originally the theories of persecutory and depressive anxiety were advanced by Melanie Klein independently of the problem of separation anxiety; and that, moreover, persecutory and depressive anxieties are conceived by her as existing, initially at least, in very primitive form either from birth or from the earliest weeks. Their manifestations at a higher level of psychic organization, she holds, are to be understood as stemming from these primitive roots. I remain sceptical of this view. It is therefore necessary to emphasize that such formulations are not indispensable to the concepts of persecutory and depressive anxiety: there is no need for their role at a higher level of psychic organization to be conceived as stemming from more primitive roots. That they play an immensely important role in the more developed psychic organizations, not least in exacerbating separation anxiety and raising it to pathological levels, there can be no doubt. In this paper, therefore, persecutory and depressive anxieties will be treated as of major consequence in the elaboration of separation anxiety at a higher level of psychic organization, whilst leaving as an open question their existence and role at a more primitive level.[7]

Primary Anxiety, Fright, and Anxiety Dependent on Learning

It is my belief that the theory of instinctual responses deriving from ethology and advanced in my previous paper permits a new approach. The heart of this theory is that the organism is provided with a repertoire of behaviour patterns, which are bred into it like the features of its anatomy and physiology, and which have become

characteristic of its species *because of their survival value to the species*. Such, it was suggested, are many of the responses characteristic of the family life of Man, namely those mediating relationships between the sexes and between parents and young. This provides an instinct theory having much in common with Freud's theory of part-instincts and his notion of the 'blind' strivings of the id.

Before applying this theory to separation anxiety as the particular problem under examination, however, it is necessary to review the whole problem of anxiety and fear reactions afresh. In doing so four conditions will be delineated each of which, it is believed, although in essence very different from the others, contributes in a special way to our problem. These are primary anxiety, fright, conditioned anxiety, and expectant anxiety.

In grasping the theory to be advanced it is vital to distinguish sharply between the concept of self-preservation and that of species survival: probably all biologists would regard the first, when conceived as an 'instinct of self-preservation', as one of the most influential of misleading theories, the second as one of the most pregnant concepts in the history of biology. The notion of an instinct of self-preservation posits a force or set of forces which is designed to ensure that *a particular individual* is preserved. The notion of species survival, which stems from evolution theory, points on the other hand to the fact that any biological character which is advantageous to *the species* tends to be perpetuated (through processes of natural selection and heredity), whilst any that are not so advantageous tend, over the course of generations, to be dropped out. It is true that often what is advantageous for the species is also advantageous for the individual; but there is no guarantee of identity of interest, and where they conflict it can be that it is the interests of the individual which go to the wall. That anatomical and physiological characteristics are subject to this rule has long been recognized. The conspicuous plumage of many birds, which is indispensable to their success in mating, may be most disadvantageous to their safety. The interests of individual survival are sacrificed; the interests of species propagation are paramount. That psychological characteristics are subject to the same law has, thanks largely to the superficial plausibility of the self-preservation theory, been slow to be appreciated. Yet it is clear that all psychological characteristics which have been developed because of their species survival value *must* be so subject, and these must include any characteristics to which the term instinctual is applied. For these reasons, in discussing the theory of anxiety and fright reactions, no references will be made to the concept of self-preservation. Instead we shall be thinking in terms of species-specific behaviour patterns, or instinctual response systems as I prefer to call them,[8] which are present because of their survival value to the species and which operate, at least initially, in the blind and automatic way regarded by Freud as characteristic of the id.

In the previous paper I described some of the characteristics of what I termed instinctual response systems which are to be culled from the recent work of ethologists: 'The basic model for instinctive behaviour is thus a unit comprising a species-specific behaviour pattern (or instinctual response) governed by two complex mechanisms, one controlling its activation and the other its termination. Although sometimes to be observed active in isolation, in real life it is usual for a number of these responses to be linked together so that adaptive behavioural sequences result.' I proceeded to consider 'how as humans we experience the activation in ourselves of an instinctual response system'. When the system is active and free to reach termination, it seems, we experience an urge to action accompanied, as Lorenz (1950) has suggested,[9] by an emotional state peculiar to each response. There is an emotional experience peculiar to smiling and laughing, another peculiar to weeping, yet another to sexual foreplay, another again to temper. When, however, the response is not free to reach termination, our experience may be very different; we experience tension, unease, anxiety. It is this line of thought I wish to pursue.

The hypothesis advanced is that, whenever an instinctual response system is activated and is unable for any reason to reach termination, a form of anxiety results. The blockage may be of many different kinds. In some cases the environment may fail to provide the terminating conditions, as for example when there is sexual arousal in the absence of an appropriate partner. In other cases two or more instinctual responses may be active but incompatible, for example, attack and escape. In other cases again, the blockage may be associated with fear or guilt, or some deeper inhibition. No doubt the particular form of blockage will influence outcome; here, however, I wish to emphasize only the common feature. No matter what the nature of the blockage, it is postulated, if an instinctual response system is activated and unable to reach termination, changes occur both in behaviour (namely in psychological and physiological functioning) and also in the subjective experience of the individual himself. When it rises above a moderate level it gives rise to the subjective experience of anxiety. To distinguish it from other forms of anxiety I am terming it primary anxiety.

Whether in fact every kind of instinctual response system which is active and unable to reach termination is accompanied by primary anxiety needs further exploration. So too do the behavioural accompaniments of anxiety. Both the physiological and the psychological components seem likely to be in large part unlearnt and thus in

some respects to resemble instinctual responses. The psychological components are of course of great consequence for psychoanalysts; since, however, they are intimately related to defence mechanisms, it will be best to postpone a discussion of them until a later paper.

Let us now consider *fright*. Fright, it is suggested, is the subjective experience accompanying at least two related instinctual response systems – those leading on the one hand to escape behaviour, and on the other to alert immobility or 'freezing'. It is to be noted that as so defined it *does not presuppose any conscious awareness of danger*. Instead, it is conceived as being the accompaniment of certain instinctual response systems whenever they are activated. Like all instinctual response systems, those governing escape and 'freezing' are conceived as systems built into the organism and perpetuated by heredity because of their survival value. it is possible that there are more than two kinds of instinctual response systems associated with fright, but, since they do not form the subject of this paper, this possibility will not be explored.[10]

Unlike some response systems, such as those relating to sexual behaviour which are sometimes activated by purely internal changes, the systems governing escape and 'freezing' seem almost invariably to require some external condition for their activation. Amongst those to which they appear to be naturally sensitive are loud noises, sudden visual changes (e.g. fast-moving objects), extremes of temperature, physical pain, and mere strangeness.[11] At this elemental level of instinctual behaviour, the individual does not structure his universe into objects interacting causally to produce situations, some of which are expected to prove dangerous and others harmless. On the contrary, so long as he is operating on this level his responses are rapid and automatic. They may or may not be well adapted to the real situation. The individual flees or remains immobile not because he has any clear awareness of danger but because his flight or 'freezing' responses have been activated. It is because the response is automatic and blind that I regard the term 'fright' as better than 'fear' to denote its subjective accompaniment. (The word 'fear', it is suggested in the Appendix, may most conveniently be limited to denote the subjective state accompanying escape and 'freezing' whenever the cognitive component of these responses is at a higher level, namely whenever there is a clear conception of what object it is which has activated them.)

Thus far in our analysis primary anxiety and fright, though having in common the character of being automatic and blind, are conceived as very different states. Whereas primary anxiety is the subjective accompaniment of many, perhaps all, instinctual response systems when impeded, fright is the accompaniment of a couple or so of related response systems when activated. In the infancy of many species, however, special conditions operate which lead to a close connectedness between the two which I believe to be of vital importance for understanding separation anxiety. This becomes clear as soon as we examine the *situations which terminate escape responses*,[12] a matter usually given scant attention.

When the escape response of an animal is activated at only low intensity, mere removal from the activating conditions suffices to terminate it. This is no longer so when it is activated at high intensity. On such occasions in the natural environment animals escape not only *from* situations but *to* situations. A frightened rabbit bolts to its burrow, a fox to its earth, a band of baboons to their selected tree. Not until they have reached their preferred *haven of safety* do they rest. Burrow, earth, and tree are terminating situations, in each case be it noted often limited (on the principle of monotropy)[13] to a *particular* burrow, a *particular* earth and a *particular* tree (or group of trees). In humans the subjective accompaniment of reaching the haven of safety is a sense of security.

Young animals also escape *to* a situation. In their case, however, the situation is often not a place but *another animal* – usually the mother. This is true of individuals of many genera, from fish to primates. The human toddler escapes from a situation which has frightened him to his mother; other primate infants do the same (Harlow & Zimmerman, 1958; Yerkes, 1943). Probably for all, *the haven of safety which terminates escape responses and brings a sense of security is proximity to mother*.[14]

Thus we find that escape responses share with crying, clinging, and following the same terminating situation. The frightened baby, it might be said, is both 'pushed' toward his mother by his escape responses and 'pulled' toward her by his clinging and following responses. This is a striking conclusion. Primary anxiety, due to the non-termination of response systems mediating attachment behaviour, and fright, due to the activation of escape responses, are more intimately related than our initial sharp differentiation of them seemed to make likely. The question arises, even, whether the two groups of response system – namely those mediating escape and those mediating attachment behaviour – are really different. May we, instead, be dealing with the activating and terminating ends of a single group of systems? The possibility needs examination.

Reflection suggests that neither view may be adequate. In the first place, as we have seen, escape is closely linked with the very different response system of 'freezing'. Furthermore the terminating conditions of escape are

often different from those of the response systems mediating attachment; thus the mere presence of the individual in a special location, or proximity to a mate, may each prove a haven of safety. Not only is 'freezing' very different from the behaviour patterns of crying, clinging, and following, but to be present in a location, if not to be in the proximity of a mate, is very different from the conditions which terminate attachment behaviour. Thus it seems useful for some purposes to distinguish two sets of instinctual response systems. Nevertheless, the discussion serves to show how intricately linked, through the existence of common activating and terminating conditions, these different systems tend to be and how misleading it would be were we to make a sharp division of them into two separate groups. Indeed, the adoption of a theory of instinctual behaviour such as that advocated here enables us to get away from any notion that each 'instinct' is entirely distinct from every other. Instead, it provides a flexible conceptual tool which promises to do justice to the complexities of the data.

So far we have been dealing only with those subjective experiences which accompany behaviour that is still at a primitive level. As conceived here, both primary anxiety and fright are the subjective components of instinctual response systems which are activated by certain conditions (part internal and part external, part unlearned and part learned by processes of conditioning) and which operate automatically. Not until the individual can structure his universe in terms of objects existing in time and space and causally related to one another can he develop the notion of a situation which is *potentially* dangerous. This leads us to differentiate a new class of behaviour with its own characteristic subjective accompaniment: these I shall term respectively *avoidance behaviour* and *expectant anxiety*.

As soon as the individual, whether human infant or a member of an infra-human species, has reached a stage of development in which some degree of foresight is possible, he is able to predict situations as dangerous and to take measures to avoid them. In this he is exercising a far more complex function that is required for instinctual responses and one which Freud habitually attributed to the ego.

At least three sorts of danger situation are distinguishable, though for reasons already given there is some overlap between them. They are:

a. Situations in which the individual believe he is likely to be assailed by external stimuli which he finds (either 'naturally' or through learning or both) to be disagreeable and/or noxious and which, if realized, would activate his instinctual response systems of escape and freezing.
b. Situations in which the individual believes he is likely to lose that external condition which terminates his escape responses, namely his haven of safety.
c. Situations in which the individual believes certain of his instinctual responses will be activated without conditions for terminating them being likely to be present. Some such situations are already covered under (*a*) or (*b*); an example of one which is not is the prospect of sexual arousal in the absence of conditions for satisfaction.

The anticipation of any of these kinds of situation, and particularly the first two which appear to be the main ones, at once motivates him to take action intended to avoid their developing. Such 'action' may be of many kinds and will vary both in regard to the decisiveness with which a plan is made and in regard to whether or not it is actually executed. Irrespective of the mode of action resulting and irrespective, too, of which kind of danger situation is anticipated, the subjective states accompanying anticipation and avoidance appear to be the same: they are those of expectant anxiety.

The division of danger situations into two main classes, namely (*a*) and (*b*) above, is consistent with the empirical findings presented in a recent paper by Dixon, de Monchaux and Sandler (1957): a statistical analysis of patients' fears showed that they tend to cluster into 'fear of hurt' and 'fear of separation'.[15] As these authors point out, moreover, it is consistent with Freud's distinction between anxieties relating to castration and those associated with loss of object. It will be clear, however, that the two classes I have defined are more inclusive than Freud's: in the scheme presented here castration anxiety and separation anxiety each represent a particular albeit important example of a broader class. The third class defined above, (*c*), was the first to be discussed by Freud and is present in his theorizing from 1894 onwards.

It may perhaps be asked why the term 'anxiety' has been chosen to denote, in combination with a qualifying word, two such different emotional states as are referred to by 'primary anxiety' and 'expectant anxiety'. There are two reasons. First, as Freud pointed out (1926, p. 165), anxiety carries with it a note of uncertainty. This is true both of primary anxiety, where it is uncertain whether or not the individual will reach a terminating situation, and

of expectant anxiety, where the subject is uncertain whether or not he can prevent the danger situation materializing. The second reason is that I believe both classes play a large part in the genesis of neurotic anxiety. A note on questions of terminology, with particular reference to Freud's usage, will be found in the Appendix.

This is a convenient moment to attempt a summary. We have now differentiated three classes of situation and three classes of behaviour, together with the corresponding subjective accompaniments to which they commonly give rise. The word 'commonly' is of importance, since situations can evoke behaviour (and its corresponding subjective experience) only when the organism is in an appropriate state. In the following tabulation the organism is assumed to be in such a state:

Situations	*Behaviour*	*Subjective accompaniment*
1. Which activate an instinctual response system without providing for its termination	Persistent activation of response	Primary anxiety
2. Which activate instinctual response systems mediating escape or 'freezing'	Escape or 'freezing'	Fright
3. Which, if no action is taken, it is anticipated will so develop that		
(a) instinctual response systems mediating escape or 'freezing' will be activated		
(b) the haven of safety will be lost	Avoidance	Expectant anxiety
(c) an instinctual response system will be activated in conditions unlikely to provide for its termination		

In real life more than one situation may be present at once and behaviour of more than one kind and level result. Thus at the sound of an air-raid warning each member of a family may experience expectant anxiety in regard to the possibility of harm coming both to themselves and their loved objects and may take precautions accordingly; whilst the whistle of a bomb may excite both escape and clinging responses simultaneously. Although in them the function of foresight, dependent on an appreciation of causal relationships, may be well developed, the example serves to emphasize that the primitive non-foresightful instinctual responses none the less persist. During the course of development, it seems, we move from a condition in which we possess only the more primitive response systems to a condition in which we are equipped not only with these but also with the capacity for foresightful action. During maturity the extent to which primitive instinctual responses, action based on foresight, or both in combination are likely to mediate our behaviour on a particular occasion is a complex matter. It is one to which I hope to give further attention in a later paper on defences.

Before proceeding to a systematic discussion of separation anxiety, I wish to emphasize afresh that, although we have become caught up in sketching part of a revised theory of anxiety, this is not the purpose of the paper. Our problem is that of trying to understand separation anxiety. Adequately to formulate a comprehensive theory of anxiety would require a broader approach: in particular it would need to give close attention to anxiety arising from the threat of psychic disorganization.

Ingredients of Separation Anxiety

From the foregoing it will be clear that, according to the hypothesis advanced, separation anxiety is initially a form of primary anxiety, with or without the addition of fright, and that, as the infant develops, anxiety based on learning comes to be added. The reasoning behind this hypothesis has already been presented. My confidence in it springs from my belief that it provides a better explanation of observations of infants and young children than do other hypotheses and is enhanced by the fact that it seems also to fit comparable observations of the young of other species. These will be reviewed.

In very many species of bird and mammal the young show signs of anxiety when removed from their parents. The 'lost piping' of young ducklings who have become attached to and have temporarily lost a mother figure is a familiar example. The behaviour of infant chimpanzees in such situations is well recorded. Since it resembles

closely, though in slightly exaggerated form, what we see in humans and seems almost certainly to be homologous, it is instructive to examine it. I shall draw on three accounts. Two (Kellogg & Kellogg, 1933; Hayes, 1951) give detailed information about two infant chimpanzees who were 'adopted' and brought up in a human home; the third, that by Yerkes (1943), who had prolonged experience of young chimpanzees living in captivity with their own parents, presents generalizations based on many cases. All three agree on the intensity of protest exhibited and, by implication, the anxiety experienced when a baby chimpanzee loses its mother-figure.

Mrs. Hayes recounts how Vicki, a female whom she adopted at 3 days, would, when aged 4 months, cling to her foster-mother 'from the moment she left her crib until she was tucked in at night. … She sat on my lap while I ate or studied. She straddled my hip as I cooked. If she were on the floor, and I started to get away, she screamed and clung to my leg until I picked her up. … If some rare lack of vigilance on her part let a room's length separate us, she came charging across the abyss, screaming at the height of her considerable ability.'

The Kelloggs, who did not adopt their female chimp, Gua, until she was 7 months old and who kept her for 9 months, report identical behaviour. They describe 'an intense and tenacious impulse to remain within sight and call of some friend, guardian, or protector. Throughout the entire nine months … whether indoors or out, she almost never roamed very far from someone she knew. To shut her up in a room by herself, or to walk away faster than she could run, and to leave her behind, proved, as well as we could judge, to be the most awful punishment that could possibly be inflicted. She could not be alone apparently without suffering.'

It is of course possible to assume that such behaviour always contains an element of foresight – foresight that physiological needs will not be met. Its strength and immediacy, together with what we know about the primacy of clinging, make this, however, seem unlikely. Furthermore, as was stressed in the previous paper, such a theory is unnecessary.

Except for being less mobile, human infants during the second half of their first year seem to respond similarly to the lower primates. By this age they have become much more demanding of their mother's company. Often when she leaves the room they are upset and do their utmost to see that contact with her is resumed, either by crying or following her as best they can. Such protest behaviour, I am postulating, is accompanied initially only by primary anxiety.

Later, in both humans and chimpanzees, conditioned and expectant anxiety develop as a result of learning. Their development in chimpanzees is of course well attested. Comparing Gua with their son, who was 2½ months older than she, the Kelloggs report: 'Both subjects displayed what might be called anxious behaviour (i.e. fretting and crying), if obvious preparations were being made by the grown-ups to leave the house. This led (in Gua) to an early understanding of the mechanism of door closing and a keen and continual observation of the doors in her vicinity. If she happened to be on one side of a doorway, and her friends on the other, the slightest movement of the door toward closing, whether produced by human hands or by the wind, would bring Gua rushing through the narrowing aperture, crying as she came.' From this account, it seems clear, by a process of learning Gua was able to anticipate and so to avoid the danger of separation.

Similarly with human infants: it is signs that mother is going to leave them that come to evoke conditioned and expectant anxiety most commonly. At what period during the infant's first year the capacity for foresight develops is difficult to say. Experiment, however, should be easy. If Piaget's views are confirmed we should expect it to be present from about 9 months.

Not only do attachment behaviour and anxiety responses appear similar in humans and other species, but the same is true of fright responses in the absence of the mother. In such circumstances the young of many species freeze. Robertson noted this in young children soon after starting observations in 1948. Before a child had got to know him and whilst therefore he was still a frightening stranger, a young child in hospital would occasionally respond to his approach by suddenly becoming immobile, as if trying not to be there, though watching him intently the while. In the course of observations made in connexion with his film study, Robertson (1953a) was able to record this response on two occasions when a strange male colleague approached Laura (he himself by this time having become a familiar and reassuring figure). On each occasion Laura reacted by lying down with eyes closed and failed to respond as she usually did to Robertson's friendly words: indeed only a flicker of the eyelids showed she was not asleep. When told that the man had gone, however, she at once sat up.

Comparable behaviour in infant rhesus monkeys has recently been reported by Harlow and Zimmermann (1954). In the course of their experiments with model mothers they introduced eight baby monkeys for three-minute periods 'into the strange environment of a room measuring 6 feet by 6 feet by 6 feet and containing multiple stimuli known to elicit curiosity-manipulatory responses in baby monkeys. The subjects were placed in this