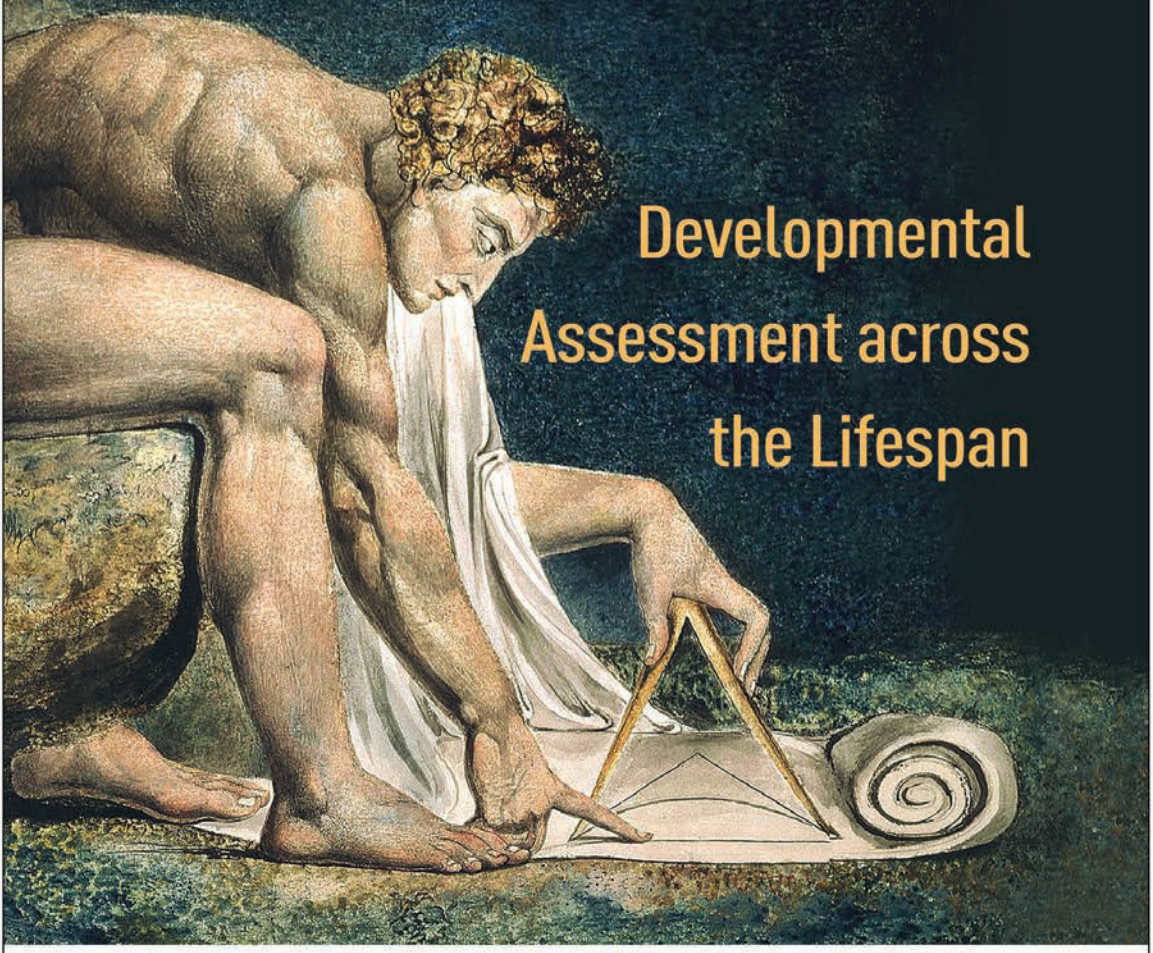
MEASURING ATTACHMENT

Developmental Assessment across the Lifespan



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Foreword by L. Alan Sroufe

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Contents

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CHAPTER 3

The Strange Situation

Paradigm, Practique, and FAQs

Everett Waters, Brian E. Vaughn, and Kristin Bernard

John Bowlby often referred to attachment theory as a new *paradigm,* a new way of understanding the infant's tie to primary caregivers. The term can also refer to a community of theorists and researchers bound together by shared principles and methods (Kuhn, 1962/2012; Masterman, 1970). Thus, the *attachment paradigm* refers to both Bowlby–Ainsworth attachment theory and the community that shares and contributes to this perspective.

Paradigm can also refer to one or more prototypical problems or key techniques associated with a theoretical or methodological approach (Kuhn, 1962/2012; Masterman, 1970). As students become skilled in solving such problems or using a particular tool, they come to understand the practical meaning of key theoretical concepts. They also learn to recognize the contexts in which a theory or methodology is relevant. Eventually, with much experience across many trials, they acquire the expectations and fluency characteristic of experts. The Strange Situation Procedure (SSP) has served generations of students as the paradigm through which they learned about the secure base phenomenon and the ethological approach underpinning infant attachment theory. As much as any theoretical insight or empirical result, this is why the SSP endures.

The SSP's history is detailed in van Rosmalen, van der Veer, and van der Horst's (2015) insightful review in the *Journal of the History of the Behavioral Sciences* and also in Waters, Bretherton, and Vaughn's (2015) new preface to *Patterns of Attachment: A Psychological Study of the Strange Situation*. The laboratory setup and procedures for conducting SSP assessments are detailed in *Patterns of Attachment* (Ainsworth, Blehar, Waters, & Wall, 1978/2015) and outlined in the methods sections of countless research articles. Thus,

there is little to add on either score. Instead, we focus in this chapter on practical matters, implicit knowledge of the SSP paradigm that rarely finds a place in scientific writing but has everything to do with learning and using the SSP in research and applied settings. We address this chapter primarily to novices and to research consumers who need to understand not only the procedures but also the goals and practical touches that underpin good quality SSP assessments. Implicit knowledge does not lend itself to consensus. It reflects individual experience. Some in the SSP community may not agree with us on every detail. We hope they will agree that our presentation reflects the kind of information necessary to turn novices into experts.

Like many skilled measurement tasks, conducting and scoring the SSP involves more than simply following a set of rules. Written procedures and scoring instructions take us only so far. They help standardize and stabilize a method over time. As well, they are valuable aids to memory for numerous and subtle instructions. However, it matters that the SSP is rooted in behavior rather than responses to test items. The rationale for both the procedure and the scoring assume a certain understanding of how behavior works. That is, how behavior in general and infant–mother interaction in particular are organized and unfold in naturalistic settings. Unfortunately, this is not part of contemporary psychology training.

Learning to use and score the SSP entails working with an experienced coder who can illustrate Mary Ainsworth's written coding instructions with multiple examples from archival SSP recordings. There is no substitute for a mentor who can point out, "This is what the instructions are referring to when they mention behavior *X*," or "Without this context, we can't say that this behavior means *Y*."[1] Fortunately, Alan Sroufe, Elizabeth Carlson, and their colleagues at Minnesota's Institute for Child Development have conducted highly successful SSP training workshops every summer for over 20 years. Their dedication to maintaining the quality of SSP assessments is widely and deeply appreciated. Although active attachment research groups occasionally provide training, the Minnesota group's training materials are exceptional. Moreover, they can host a dozen or more trainees at once. This is the only way to keep up with the constant demand for training.

Infant attachment research in the Bowlby–Ainsworth tradition is a departure from the behaviorist paradigm of the 1950s through the 1970s, which viewed physics as the model science and focused on arbitrary sequences of discrete acts and operational definitions, with little attention to the importance of context and organization. The Bowlby–Ainsworth tradition is rooted in a new paradigm, a biological approach to behavior that focuses on organization and adaptation. Understandably, psychologists steeped in the earlier paradigm find that adopting a new perspective takes some getting used to. Communication across paradigms is always difficult and requires a willingness to see with new eyes. Today, the behaviorist and psychoanalytic paradigms that so

[1]This parallels G. Frege's (1984) conclusions regarding the relation of context to meaning in mathematics, logic, and language.

complicated (and resisted) the Bowlby–Ainsworth perspective in the 1960s and 1970s are little emphasized in the psychology curriculum. This allows training to proceed with relatively less attention to unlearning old allegiances and old ways of viewing behavior. In this respect, teaching and learning to use the SSP are probably easier today than in the past.

Nonetheless, it remains difficult to conduct consistently good SSP assessments without appreciating the goals and practical considerations underlying the procedure. These range from the layout of the room to the relation between camera work and scoring, and the flow of the procedure, not just from the first episode to the last but from telephone contacts and greetings on campus to debriefing and departure. Fortunately, we have the flexibility in this chapter to address what we might call the "pragmatics" of running SSP assessments. We undertake this in three sections.

We begin with a few words about behavior. It is not an overstatement to say that much of the human and animal behavior around us goes unnoticed. Our goal is to highlight behavior per se as an interesting phenomenon and help novices begin to see attachment behavior through the same lens that informed Mary Ainsworth's home observations and Strange Situation assessments.

We then turn to a detailed narrative presentation of SSP procedures, designed to complement the description of procedures in *Patterns of Attachment*. The narrative format supplements the procedures detailed in *Patterns of Attachment* and in countless empirical research reports, allowing us to provide explanations and elaborations in context, and to convey something of *what it feels like* to conduct the procedure. We hope this perspective will be valuable to potential trainees in advance of SSP training workshops, and for researchers who plan to conduct the SSP themselves, then make other arrangements for scoring. It may also be useful to research consumers who need to understand, beyond what mere instructions convey, what the assessment entails.

We conclude this chapter with a discussion of more than two dozen frequently asked questions (FAQs). These are primarily issues of theory or measurement that we encounter working with students or assisting experienced researchers who are not expert in attachment but want to teach about or supervise students interested in using the SSP. They overlap quite a bit with issues we discuss among ourselves and with our close colleagues. As in the chapter's earlier sections, our goal in discussing FAQs is to convey some of the implicit knowledge that distinguishes experts and is important for a good start in attachment study. A good part of this is information about what kinds of questions to ask and what constitutes a useful answer.

"SEEING" BEHAVIOR

Ethology is the biological study of behavior in naturalistic settings. One of its key insights is that behavior is more than mere movement; it is an essential part of a species' evolutionary endowment and thus merits careful study.

Ethologists can readily describe in great detail the behavior of species they study, describing its adaptive significance and development, and contrasting it with the behavior of closely related species. Every detail is hard-won information gleaned through exhaustive and exhausting observations. In contrast, developmental psychologists depend too often on an informal understanding of behavior, underpinned by little more than having been children themselves, rearing a child or two, or noticing children in the course of other activities. We risk much when we trade in this kind of casually acquired, incidental evidence—if it is evidence at all.

Trained in the traditions of Cambridge psychology and medicine, John Bowlby found psychoanalysts' emphasis on introspection and retrospective reconstruction unsatisfying at best. Even during his psychoanalytic training, he wondered whether his supervisors' emphasis on children's fantasies and subjective experiences would have found support in parents' reports or observations in the home. However, his supervisors denied him this kind of convergent validation—an issue that significantly delayed the completion of his training. According to his son, Richard, it was only the pressure of a new family that motivated him to finally complete his certification (R. Bowlby, 2006). In later years, he would encourage the Tavistock Clinic to include observational methodology in its curriculum and recruit James Robertson to film naturalistic observations of parent–child separations in hospital and residential care (van der Horst, 2011).

Inspired, perhaps, by Darwin's (1877) *A Biographical Sketch of an Infant,* his own enthusiasm for birdwatching, and his early hospital and residential care observations, one of John Bowlby's first insights regarding infant attachment was that the clingy, crying behavior portrayed in psychoanalytic (and learning) theories hardly captured the subtlety, complexity, and planfulness of infant's actual behavior over time in naturalistic settings. For anyone who takes the time to observe (e.g., Piaget, 1936/1952), patience reveals an active, curious, mastery-oriented infant whose mother encourages and enriches exploration and serves as a haven of comfort or safety as needed.

Bowlby felt that neither drive accumulation–reduction nor patterns of reinforcement could plausibly explain the seemingly purposeful balance infants maintain between proximity seeking and exploration over time. Nor could they explain the intricate dance of face-to-face interaction. Such behavior is too rapid and context-sensitive to be explained in terms of waxing and waning drive states. Similarly, the coordination of information about aspects of the physical environment, the caregiver's recent and current behavior, proximity and other influences on accessibility, internal states, and so forth, is too complex for simple learning explanations. Not that Bowlby dismissed the importance of learning in development. He wanted a theory that could be integrated with learning theory, without being confined by learning theory (Bowlby, 1958, p. 362).

Following Niko Tinbergen's (1951, 1963) landmark descriptions of the aims and methods of ethology, John Bowlby (1957, 1958) proposed building a

new theory of infant–mother bonds rooted in (1) observation and description (especially in naturalistic settings), (2) analysis of immediate causation, (3) a view to behavior's survival/adaptive value, (4) detailed developmental analysis, and (5) an evolutionary/comparative framework. From this beginning grew his and Mary Ainsworth's commitment (e.g., Bowlby, 1969; Ainsworth & Bowlby, 1991) to an attachment theory rooted in an ethological perspective and to focusing on actual behavior observed in detail over time and in meaningful (to the infant) settings (e.g., Hinde, 1966; Tinbergen, 1951; DeVore, 1963, 1965).

An "Eye" for Behavior

Attachment researchers in the 1960s and 1970s often operationalized the child's tie to its primary caregiver in terms of frequency counts on discrete behaviors such as looking, vocalizing, and touching the mother during brief laboratory observations (see Maccoby & Masters, 1970; Sroufe & Waters, 1977). This approach promised systematic, "objective" data on what otherwise seemed a very elusive phenomenon. It was also more convenient and economical than naturalistic observation. Too convenient and economical, perhaps. In the end, they counted many behaviors but learned little about behavior.

Long before Bowlby suggested approaching attachment from an ethological perspective, he had been an avid birdwatcher, filling the drawers of library-style card catalog cabinets with detailed information on the species he encountered, when, where, and the details of their behavior. He found behavior interesting and understood its complexity and sensitivity to context, and that there was meaning to be extracted at different levels of analysis. Yet he claimed to lack Mary Ainsworth's patience and stamina as an observer, and the "eye" for behavior evident in *Infancy in Uganda* (Ainsworth, 1967) and in her scales for scoring maternal behavior at home and infant behavior in the SSP (Ainsworth et al., 1978/2015).

Some of the hallmarks of an ethological perspective on behavior are outlined below and discussed in relation to attachment assessment. These include the salience, context, meaning, and organization of behavior. These are central to attachment study in the Bowlby–Ainsworth tradition. Yet, there is little space for them in research journals.

Behavior: Seeing versus Observing

It is easy to overlook behavior unless someone points it out and provides concepts and language with which to understand it. One of us (E. W.) recalls having spent years in South Florida, scuba diving on reefs and wrecks off the coast and in the Keys, and seeing an astounding array of sea life—all without noticing a single instance of territoriality, courtship, foraging, or parental behavior as it unfolded—unseen by an untrained eye. This is reminiscent of

a passage from the Sherlock Holmes story "A Scandal in Bohemia" (Doyle & Klinger (2007, p. 4):

> WATSON: . . . at each successive instance of your reasoning I am baffled until you explain your process. And yet I believe that my eyes are as good as yours.
>
> HOLMES: Quite so. . . . You see, but you do not observe. The distinction is clear. For example, you have frequently seen the steps which lead up from the hall to this room.
>
> WATSON: Frequently.
>
> HOLMES: How often?
>
> WATSON: Well, some hundreds of times.
>
> HOLMES: Then how many are there?
>
> WATSON: How many? I don't know.
>
> HOLMES: Quite so! You see but you do not observe. That is just my point. Now, I know that there are seventeen steps, because I have both seen and observed.[2]

One of the key insights underpinning ethology and behavioral biology is the recognition that behavior is every bit as characteristic of a species as its anatomy. First expressed in Julian Huxley's (1914) classic study "The Courtship Habits of the Great Crested Grebe," the idea that behavior is an object, a structure, an element on which evolution can operate, a taxonomic feature, brings it to the foreground, visible and inviting inquiry. John Bowlby (1958) was initially interested in an ethological perspective because it promised an alternative to psychoanalytic drive theory. His first references to specific behaviors that bind the infant to its mother were quite preliminary, hardly the fruit of detailed ethological observations. "Those which I believe we can identify at present are sucking, clinging and following, in all of which the infant is the principal active partner, and crying and smiling in which his behaviour serves to activate maternal behavior" (Bowlby, 1958, p. 351). In contrast, Mary Ainsworth's observations in Uganda extended the list to least 16 behaviors, each described in detail, illustrated in context, and its impact on the mother noted (Ainsworth, 1967, pp. 321–350). After reading her Uganda observations, it is difficult to see infant–mother interactions in quite the same light again. Whereas, previously, adjectives such as cute, happy, clever, and warm seemed to suffice, now you see *behavior*—complex, sensitive to context, and seemingly purposeful.

The Context of Behavior

Behavior does not occur in isolation. There is always a context. Indeed, neurobiologists have demonstrated that a primary function of structures in the basal ganglia is to incorporate context into the process of selecting, initiating,

[2]See also Isaiah 42:20.

and terminating behaviors. Indeed, the smallest biologically/adaptively meaningful unit of behavior may not be "a behavior" but "a behavior + a context."

Mary Ainsworth did a great deal to highlight the influence of context on the activation/termination and meaning of infant behaviors. In particular, she illustrated that both the content and meaning of infant behavior depends on its place in the stream of the infant's ongoing behavior, the infant's mood, and its expectations regarding the content and qualities (*e.g.*, timeliness, relevance, coordination with ongoing behavior and goals) of the caregiver's behavior. This perspective is evident throughout her Uganda and Baltimore observations and in her scales for scoring maternal behavior at home and infant behavior in the SSP (Ainsworth et al., 1978/2015, Appendices II, III, and IV). Context is so important in her work that it is well worth the effort for new researchers to read through these scales, highlighting each time the description or interpretation of a behavior is conditioned on the context in which it occurs.

The Meaning of Behavior

Behavior is not merely anatomy in motion. It carries information about an individual's view and understanding of its environment and about its goals. Melville's Captain Ahab says as much when he tells his crew to look through the masks that hide reality to the "lower layer," the meaning behind mere appearances. These, he says, are revealed in behavior. "In each event, in the living act, the undoubted deed—there, some unknown but still reasoning thing puts forth the [shape] of its true features" (Melville, 1851, Chapter 36). Infants, and often adults, cannot verbalize for us which features in the environment shape their behavior, the traces left by past experiences, or their expectations. Yet their behavior often offers glimpses and hints at where to look for further clues. Mary Ainsworth showed that an infant's behavior can tell us much more than merely what it has just done.

The idea that behavior has meaning is central to the ethological perspective. This view stems from Konrad Lorenz's (1935) classic paper "The Companion in the Bird's World," in which, among other things, he first drew attention to the phenomenon we call imprinting and discussed the impact of an individual's behavior on others. One of the goals Bowlby and Ainsworth adopted from ethology was to understand infants and mothers as mutually situated in a dyadic relationship and to understand the meaning of their behavior to each other (Sroufe & Waters, 1977). Once we begin to see behavior *qua* behavior, behavior in its own right, it is hard to imagine it not containing information, some sort of meaning. Although the ethologists had made a compelling case for viewing animals in this way, regarding human infants, Ainsworth, in particular, viewed this a hypothesis to be tested. Thus, she recorded not just the occurrence of a behavior but also the physical, behavioral, and emotional context in which it occurred. She then searched in concurrent and longitudinal data for the meaning of each partner's behavior to the other. In doing so, she discovered much about the vocabulary and meaning-structure of

infant–mother interactions and the time frame and levels of behavioral detail and organization at which implicit meaning is communicated within the dyad. She also learned that the meanings they take from their interactions shape subsequent behavior, and, as Bowlby predicted, developmental outcomes. Thus, for several generations now, her insights into the meaning of infant and maternal behavior have served as the predicate for attachment measurement and research. They have also served as guides for designing prevention and intervention programs. All possible only because behavior has meaning and we have the key.

Levels of Detail and Organization

Mary Ainsworth found it useful to describe behavior at different levels of detail and organization. Following the lead of Robert Hinde (1959) and other ethologists, she described infant–mother behaviors during close bodily contact and face-to-face interaction in terms of the smallest movements that might convey meaning to its partner, or help her understand the infant's or the mother's requirements or goals. The importance of behavioral organization to her view of attachment and the secure base phenomenon is evident throughout her work, especially in the measures she developed. See, for example, her preamble to the ABC classification system (Ainsworth et al., 1978/2015, pp. 55–58.) *Organization* was not just a "buzzword" in her work; it became fashionable because of her work.

Among her most surprising findings was how much meaning is communicated in fine-grained analyses of behavioral content and organization that might easily be dismissed as trivial. Examples abound in the scales she developed for scoring early maternal behavior in her Uganda and Baltimore home observations and in her scales for scoring infant behavior during SSP reunion episodes (Ainsworth, 1967; Ainsworth et al., 1978/2015, Appendices II and III). She also found it useful to describe and quantify behavior at higher levels of organization (e.g., referring to *maternal sensitivity* or *cooperation with ongoing behavior*) in order to capture the aggregate impact of even small behaviors over countless interactions. That is, once information has been extracted from behavioral details, there can be additional information in the way these details are organized over time.

Just as behavior can be described at different levels of detail, its organization too resides at different levels, from the organization of *individual motor components* that give behavior its topography and fluidity to the *coordination of several behaviors into a skilled action,* to *coordination with something in the environment or over time,* especially in relation to a goal. Behavioral organization is also evident in the *coordination of several different behaviors* during exploration of toys during the SSP. For example, smooth, systematic coordination of locomotion, posture, gaze, and manipulation, combined with positive affect, and often affective sharing, are clear signs that an infant has recovered its composure in reunion episodes. Less well-organized behavior,

including manipulating toys while looking distractedly elsewhere or anger interspersed with weak exploratory behavior, or simply sitting among toys without constructively exploring them, are all indications that the infant remains distressed despite the mother's return and efforts to provide comfort. Such distress in the absence of proximity seeking or signaling is a hallmark of moderate avoidance and weighs in favor of an insecure classification. Importantly, the key is not in any one of the behaviors but in the way they are (or are not) organized into effective exploration.

Behavioral organization is also evident in the *coherence of behavioral sequences*. For example, a typical response to the mother's departure and return in the SSP is protest, seeking, approach, clambering, clinging until comforted, and return to interest in the environment (either from the mother's lap or back on the floor with toys). It is not necessary to see each of these, or that any of them take a particular form. What is important is whether the flow of behavior keeps moving forward, toward the expectable endpoint—that is, toward being picked up and effectively comforted. The behavior sequence has lost its expected organization if approach to the mother is interrupted (e.g., partial approach and then turning to toys), if the infant (after showing distress upon separation) moves away from rather than toward her, or if the infant approaches or reaches to be picked up but then wiggles to be put down (before being comforted), only to cry again.

Behavioral organization is also reflected in the *smooth intercoordination of behaviors serving different goals,* as in cycles of exploration and proximity seeking seen in the course of extended home observations and across episodes in the SSP. On a certain reading of attachment theory, we might expect that distress (over time away from the mother) is the primary trigger that initiates transition from exploration to proximity seeking. In fact, most returns are triggered when the infant detects a change in its mother's behavior and approaches to update information on her location and availability, or by exhausting possibilities for further exploration and returning to her for interaction or direction to new opportunities to explore. Thus, information about the infant's expectations lies not simply in the quality of play or the presence or absence of distress, but in the smoothness with which the infant transitions between exploration and proximity seeking. One of the hallmarks of secure attachment, then, is the ability to maintain the organization between the two behavior systems as the infant transitions from exploration to proximity seeking and back.

Maintaining a secure base relationship entails organizing *a wide range of behavior to serve several goals, over significant periods of time* (hours or days) *and across a wide range of situational, behavioral, and affective contexts*. Observers must look for (1) specific secure base behaviors, (2) indications that the infant is making its needs clear and is exploiting opportunities to learn about the environment and its own competencies and limitations, and (3) behaviors that help knit the relationship together over time (*e.g.*, the mother remaining interested, available, and effectively scaffolding the infant's

explorations). Over such long intervals and such a wide range of activities, it is inevitable that there will be rough patches. But few are frequent or disruptive enough to compromise the sense that the mother and infant are an effective, coordinated dyad, working toward the same goals. Ainsworth found this kind of organization easier to recognize than to quantify (See Ainsworth et al., 1978/2015, Appendix V). Attachment study would benefit from additional work on this level of organization.

Continues (next page).

FREQUENTLY ASKED QUESTIONS

In this final section we address some of the most frequently asked questions (FAQs) raised by students and colleagues intending to use the SSP. Most often, questions are framed in terms of "Am I allowed to do *x, y, z*?" Or, perhaps a little more often, "This is what I've done; was it OK?" Rather than yes or no answers, we try to provide information about how to think about attachment and the SSP, and let the answers follow from there. As is customary, let us concede at the outset that these are our answers. There are no official answers (who would decide?). We have sought input from colleagues, but we alone are responsible for what the reader finds here. Over the years, we have more or less settled into the advice and opinions below. Nonetheless, we reserve the right to improve on them in light of new ideas and information.

1 What is the relationship between "attachment" and attachment behavior? For this we can hardly do better than quote Mary Ainsworth (1967) from *Infancy in Uganda:*

> Attachment is manifested through these patterns of behavior [referring to her list of 16 attachment-related behavior patterns on p. 332], but the patterns do not themselves constitute the attachment. Attachment is internal. . . . We can conceive of attachment as somehow being built into the nervous system, in the course of and as a result of the infant's experience of his transactions with his mother and with other people. This internalized something that we call attachment has aspects of feelings, memories, wishes, expectations, and intentions, all of which constitute an inner program acquired through experience and somehow built into a flexible yet retentive inner mechanism which serves as a filter for the reception and interpretation of inner experience and as a kind of template shaping the nature of the outward response. (pp. 429–430)

2 What does *attachment security* mean? Answers to FAQs about the SSP are often rooted in or depend on a coherent answer to this question. The term *secure attachment* (or securely attached) is occasionally taken to mean "tightly attached," as in "the rope was securely attached to the dock." This is a misunderstanding. Both John Bowlby and Mary Ainsworth referred to security as the emotional accompaniment to an infant's appraisal of risk or danger. Indeed, Ainsworth often pointed to the etymology of the term (Latin, *sine cura*—without care) for the sense of the concept. They meant especially appraisals in light of expectations about a primary caregiver's availability, responsiveness, and efficacy. Today, the term is often used (often implicitly) to mean little more than "generally well adjusted." Moreover, it has taken on different meanings/connotations in theory, empirical research, psychotherapy, media, and child welfare (Duschinsky, 2020). Unfortunately, this does not provide the guidance needed for measurement design or validation.

The key insights underlying modern attachment theory arose from John Bowlby's observation that human infants do not behave like the clingy

dependent creature imagined in psychoanalysis and learning theory. Instead, they combine a wide range of behaviors with continuous monitoring of their external and internal environment and state, and information about their mothers' past and current behavior, in order to explore their environment while maintaining a degree of access to her as a source of information and, as required, a haven of comfort/safety (Waters et al., 2015).

Within this framework, "attachment security" can be understood as referring to confidence or certainty, or positive expectation regarding an attachment figure's availability and responsiveness in the context of exploration or seeking comfort/safety. Indeed, German-speaking attachment researchers employ the term *sicherheit,* which has etymological links to *certainty* as well as to *trust* (e.g., Grossmann & Grossmann, 2017). H. Waters and Waters (2006) and H. Waters, Waters, and Waters (2021) have suggested that mental representations of secure base experience play a significant role in generating and generalizing such expectations and the emotions they engender when they are confirmed or violated.

In designing measures of attachment development and individual differences, it is useful to think of attachment behavior as a skill rather than a trait. In addition to reflecting its inherent complexity, this perspective connects attachment theory with the extensive psychological research on skills and skill acquisition (e.g., Attri, 2018; Fridland & Pavese, 2020). In turn, this suggests fruitful empirical approaches to causation, information processing, development, validation, and intervention.

3 To what does the term *secure base phenomenon* refer? Again, we can turn to Mary Ainsworth. In *Infancy in Uganda* (1967, pp. 345–347), she described "use of the mother as a secure base for exploration" and "flight to the mother as a haven of safety." She described secure base use as follows:

> Once an infant is able to crawl, it does not always stay close to the mother but rather make little excursions away from her, exploring other objects and interacting with other people, but returning to the mother from time to time. The mother seems to provide a secure base from which these excursions may be made without anxiety. The child who is attached to his mother, if he is secure in this attachment, does not need to maintain constant proximity or contact with her. He is content to move away, as long as he knows that she is there. He can even leave the room on his own initiative, and his aplomb in so doing is sometimes in sharp contrast to his consternation when his secure base gets up and moves off. Indeed, one could scarcely identify this as a pattern of attachment were it not for the fact that the child still is concerned about his mother's whereabouts. (p. 345)

Subsequently, she emphasized the close relation between these two behavior patterns, noting that aside from speed and absence of delight, it is primarily context rather than specific behaviors that distinguish exploratory approaches from retreat to a safe haven. She captured their intercoordination in her

concept of the attachment–exploration balance. Attachment researchers have occasionally understood this in terms of the two behavioral systems alternately switching on and off at transitional points in attachment–exploration cycles. Of course, this raises the question, how does the attachment system know when to initiate approach unless it is actively monitoring the mother's availability even during excursions away from her? Thus, it is more useful to view both proximity seeking and exploration as behavioral systems that can serve the goals of a superordinate attachment system. (See FAQ 4, below)

Finally, when asked about the secure base phenomenon, we routinely highlight work by Crowell et al. (2002) illustrating the relevance of the secure base concept as a framework for understanding problem-solving interactions in adult relationships. There is no better illustration of attachment as an integrative lifespan perspective.

4 Are attachment and exploration one system or two? Most attachment literature associates proximity seeking when distressed with an attachment system and proximity in the absence of threat (e.g., seeking information, help, new opportunities to explore or play) with a different, exploratory system. Although this is a fair reading of the attachment literature, it seems to us out of date. Waters (2002/2008) has argued that Bowlby overestimated attachment as a predator-avoidance system and underestimated the evolutionary significance of the exploratory system. Simply put, most of our predator problems would not be materially changed by running to our mommy. In general, the dangers we handle best are those we avoid in the first place. Given our size, lack of speed, and delicate structure, we were better off depending on foresight, learning the habits of predators, and group living than retreating to an attachment figure to avoid predators.

One of the key components of any species evolutionary endowment is its "life history strategy"—how it solves the problem of when to be born, when to mature, how much to invest in offspring, and when to die. An extraordinarily long period of immaturity is one of the most distinctive features of the human evolutionary endowment. Generally considered a precondition and an accommodation to our complex brain and highly flexible behavior patterns, growing up slowly is very much at the center of growing up human. It is how we build a nervous system and behavioral repertoire adapted to our experience. Our capacity to form and maintain long-term relationships that support learning, as well as survival, helps us turn prolonged immaturity into a prolonged apprenticeship. Here, as much or more than in protection from predators, we see the evolutionary significance of secure base relationships for human development. The ability to prosper in a human society requires years, decades, of learning, experience, and supervision.

If both seeking the mother as a haven of safety and exploration from her as a secure base depend on the mother's presence, and both offer evolutionary advantages, what can be said in favor of conceptualizing them as distinct

systems? Clearly, there are species in which the young engage in haven-of-safety behavior but not exploration from a secure base, and vice versa. This makes the point that in some species, at some point(s) in evolutionary history, they were separate systems. Yet a behavior's evolutionary significance can change over time. In addition, it seems likely that each has arisen independently, through convergent evolution, in more than one species at different times. However, this does not seal the argument for treating them as distinct systems in humans. After all, few, if any, of the species that show only safe haven behavior or exploration from a secure base form enduring monogamous bonds in adulthood. This rather limits the strength of arguments from such examples to the human case.

Sroufe and Waters (1977) have argued against prejudging the attachment relevance of a particular behavior without taking into account the physical, behavioral, and affective context in which it occurs. We have proximity seeking and exploratory behavior—both complex behavior patterns, both available to a variety of superordinate motivational systems or goals. In addition, evolution has provided humans with the ability to coordinate proximity and exploratory systems that exist independently in other species. From an attachment perspective, this intercoordination would seem to be the key evolutionary innovation. Why not then conceptualize "attachment" as a superordinate system that can coordinate both proximity seeking and exploratory behavior over time and contexts?

The notion that attachment refers to a system that intercoordinates proximity seeking and exploration, rather than to either system alone, has important implications for attachment theory and measurement. It is generally consistent with the systems framework presented in Bowlby's *Attachment* trilogy and suggests an interesting architecture for computational modelling (see Petters, 2019). It also avoids a bit of a paradox in convergent validity data on attachment assessments from different contexts. Simply put, if seeking a haven of safety is prototypical attachment behavior and exploration is a distinct system, the antithesis of attachment, then we would hardly expect clear convergence among measures from *emergency,* distress-laden contexts (e.g., SSP reunions; later portions of the Adult Attachment Interview [AAI]) and *ordinary* contexts (e.g., naturalistic home observations; early portions of the AAI; the Secure Base Script Assessment). Yet this is exactly what we find. Indeed, why would Mary Ainsworth have devoted so much of her observation time in Uganda and Baltimore to ordinary, largely nonstressful settings if attachment plays out primarily in emergency, threat-laden contexts? The fact that we can glean useful information from both ordinary and emergency contexts suggests we should not privilege either system/context over the other in terms of attachment relevance or measurement.

5 What does the SSP measure, and how do we know? Early attachment theorists conceptualized individual differences in terms of the onset

and "strength" of attachment bonds. However, by the time Mary Ainsworth was conducting her Baltimore longitudinal study, she was discarding both concepts as theoretically unsatisfactory and empirically inaccessible. Instead, she focused on an infant's ability to use its mother as a secure base at home. Increasingly, we prefer to describe the SSP as a measure of *the extent to which an infant skillfully and consistently uses a particular figure as a secure base for exploration and retreat for comfort or safety in naturalistic settings (usually at home or on excursions with the attachment figure)*. This is closer to the empirical validation criteria. It also reflects attachment theory's roots in descriptive ethology and has clear implications for further validation studies, extensions of the SSP to new age groups and populations, and to testable research hypotheses. Ainsworth validated SSP classifications against observations of secure base behavior at home (Ainsworth et al., 1978/2015, Table 20). The table reporting these results deserves careful study. Vaughn and Waters (1990) replicated this link using the Attachment Q-set.

To be sure, correlations with theoretically relevant variables (e.g., other facets of social development, mental representations, and adjustment in infancy and across age) also point to the validity of the SSP. However, taken alone, any pattern of correlates is open to alternative explanations. Even with such correlates, the SSP could hardly claim strong ties to Bowlby's and Ainsworth's work without links to secure base use in naturalistic settings. Correlations with external variables can also provide valuable information about discriminant validity. That is, demonstrating independence from variables that offer alternative interpretations. For example, the SSP has repeatedly demonstrated good discriminant validity vis-à-vis cognitive ability in concurrent and predictive data (Ainsworth et al., 1978/2015, p. 159). See also FAQ 9, below regarding temperament.

Occasionally, authors, especially experts from other disciplines, have understood the SSP as *the* attachment situation, as if specific behaviors are attachment-related or valid indicators of attachment security simply because they were observed in the SSP. In fact, Ainsworth was unambiguous on this point: The criterion is the life the infant lives, not what it does in 20 minutes in the laboratory. If an infant uses its mother skillfully and consistently across time and context in naturalistic settings, it can only be described as "secure," regardless of its classification in the SSP. Similarly, secure base difficulties at home denote attachment insecurity, regardless of behavior in the SSP.

6 How closely do I have to replicate the physical setup described in *Patterns of Attachment*? It should be clear from the preceding section, SSP Pratique, that there is more to an SSP assessment than simply replicating the physical setup. That said, the physical setup is an important factor in how infants experience the procedure and the scorability of the observations. In general, let your understanding of the secure base phenomenon and the attachment exploration balance be your guide. Avoid gratuitous departures

form Ainsworth's setup. At the same time, learn from innovations (especially in recording technology) that have worked well for others.

- *Test room*. Mary Ainsworth conducted the SSP in a 9′ × 9′ test room with an adjacent observation room. Of course, she was using a pair of observers to make simultaneous audio recordings of the behavior in the test room. Today a 9′ × 9′ room would be a bit small, because it places the participants quite close to the camera and requires more panning to follow the action. At the other extreme, the room should not be so large that infants find a great deal of space to explore behind the mother's and the stranger's chairs. Aside from chairs blocking the camera's line of sight, and the temptation to zoom in and out as the action moves to different parts of the room, the primary risk is that a very large room could introduce great variety in the distance between the infant and mother during reunions. As mentioned in the previous section, less camera movement is better. Ideally, you want the door to open inward, so the infant is less likely to go out of camera view when its mother or the stranger enters. Ideally, the door should open toward the camera. This helps keep the infant in view when reunions occur right at the door. These are very practical matters. They have little to do with attachment theory.

  Aside from such practical considerations, the exact size of the room is not critical. It just needs to be large enough for the mother's and the stranger's chairs to be 6–8 feet apart (so that being with the stranger entails being away from the mother), and far enough from the door to allow infants to greet and approach the mother across a distance during reunion episodes. The room should also be large enough that participants can be kept entirely within the video frame without repeated panning and zooming.

- *Camera port*. Recording video through a window has several disadvantages. First, it requires using a tripod, which necessarily puts the camera several feet farther away from the participants and reduces the angle of view. This makes it difficult to record behavior below the window frame. In addition, some older cameras may have trouble focusing through a window pane. Finally, the camera is likely to capture reflections off the window glass. It is far preferable to have a port through a wall adjacent to the door. Ideally, this would be in a wall between the SSP test room and an adjacent observation room. The bottom of the port should be approximately 3 feet above the floor. Framing the inside of the opening with wood provides a base on which to mount a tripod head; this will allow the camera to pan left and right, as well as up and down. You can avoid the infant seeing observers through the port with a cloth baffle. Simply cut four isosceles triangles from a length of black felt fabric and sew the edges together to make a tapering sack (baffle). Attach the wide (open) end to the wall around the viewing port and tripod head. Cut the narrow (closed) end of the sack to create an opening to accommodate the camera lens. Secure it around the end of your camera (or lens) with rubber bands. The baffle should be deep enough to

allow the camera to pan the full width of the room. It may be necessary to make some sort of adjustment to keep the baffle from rubbing on the camera microphone when panning.

Keep in mind that felt fabric will not do much to muffle noise from the observation room. We have generally found that the microphones on today's consumer cameras are quite good. So it is rarely necessary to mount a microphone within the test room. However, most camera microphones pick up noise from any direction. So it is important to keep sounds from the observation area to a minimum. To this end, it is useful to move away from the camera when talking with the mother or giving instructions to the stranger.

- *Lighting.* Most consumer video cameras today work quite well in low light. Overhead fluorescent lighting is usually fine. Most cameras have a white-balance adjustment to compensate for any tint introduced by fluorescent lighting. It is also useful to avoid sharp contrast between the brightness of flooring/carpet and the walls opposite the camera. This minimizes the overall image constantly going from bright to dark as the camera captures more of the floor or more of the wall.

- *Chairs and toys.* The room should be equipped with two chairs, one for the mother and one for the stranger. It can be useful to identify the mother's chair with a letter "M" in tape or permanent marker to ensure that she returns to the same location after each separation. There should also be a set of 10–12 simple, age-appropriate toys. Examples of appropriate toys include a shape sorter, stacking rings/cups, push toys (e.g., cars), plastic animals or dolls, and so forth. Toys to avoid include those that invite very vigorous play (e.g., kick balls, anything with a long handle), electronic toys that play music or make loud noise, and toys that have small or detachable parts that pose a choking risk. It is also useful to ask the mother if her child owns any of the toys you have supplied and, if so, to replace them before the SSP. The infants should be encountering novel items, not favorite playthings. We often purchase duplicate toys so they can be replaced before they show much wear or are broken. Finally, it is important to clean the toys with disinfectant wipes and to keep the floor/carpet free of visible dirt or small items. Many mothers will appreciate knowing that you have taken these steps.

In the end, the key is not reproducing Mary Ainsworth's SSP setup exactly; it is to present infants with the kind of *experience* Mary Ainsworth created. Infants should be able to explore away from mother in several directions, retreat from the stranger to the mother, make clear approaches across the room to the mother during reunion episodes, and generally show willingness or unwillingness to explore away from mother on their own initiative, while remaining close enough to her to signal or interact with her across a distance, or achieve contact promptly, if needed. This does not require a 9′ × 9′ room,

or preclude a larger room. Just keep open the option of making changes if you can see that your setup is not working.

7 Are there guidelines for good SSP videography? When Mary Ainsworth was recruiting her Baltimore sample, most 8 mm film equipment recorded less than 15 minutes of behavior (without sound). In addition, it usually required supplementary lighting, which generated a lot of heat and cast sharp shadows. Film was expensive to develop and duplicate, and editing was very time consuming. Accordingly, she relied primarily on pairs of observers to narrate rapid, independent play-by-play descriptions that were recorded on office dictating equipment and transcribed. Thus, there is no mention of videography in *Patterns of Attachment* or in Ainsworth's research reports.

Today, consumer video equipment is quite capable. It easily captures hours of behavior (with sound). Digital recordings are inexpensive and easily copied, edited, and even annotated. Moreover, consumer video cameras are compact and quite easy to operate. Thus, it is surprising how often poor videography creates difficulties for scoring SSP data and makes it difficult to compile good materials for illustrating and teaching SSP technique and scoring. A good rule of thumb or goal for SSP video is that *the recording process should be invisible to the viewer.* Scorers (or trainees/audiences) should be able to see what they need and expect to see, without the distraction of inelegant camera work.

Most video problems arise because the videographer is (1) unfamiliar with the perspective on behavior outlined in the previous section, (2) unaware of the information coders need in order to make key scoring decisions, (3) prone to unnecessary zooming and panning, and/or (4) attracted to information such as close-up facial expressions that have little significance for scoring. Once recognized, these problems are easily remedied.

The best videographers are interested in behavior and invested in doing a good job. Videographers should understand how much depends on their work. They are *key* personnel. Videography is a bit of a vigilance task. For long stretches it can seem like nothing is happening. A naive videographer may be inattentive or try to make the task more interesting by focusing on the mother or the stranger while the infant is exploring, or zooming in to capture the details of facial expressions. The more a videographer understands about what he or she is looking at and how it will be used, the easier it is to stay engaged.

The first part of this chapter (on seeing behavior) should help videographers understand their task. As should basic familiarity with the scoring appendices in *Patterns of Attachment*. It is useful to show a new videographer examples and provide commentary on well-done recordings from previous or pilot SSPs. It is also helpful to have videographers sit in on a few scoring sessions in order to gain a sense for what the scorers need and where they have difficulties. This is also an opportunity for scorers to point out where a videographer's technique has been especially helpful or could be more so.

The following dos and don'ts may seem obvious but we have encountered problems related to each of them.

DOs

✓ Arrive early. Behave professionally. Have equipment tested and ready to go before the mother and infant arrive. If you do not understand something, it is important to get it clarified as soon as possible. Ask whether your recordings are proving scorable and whether there are any problems. Remember this maxim: Data quality depends more on the videographer than on the equipment.

✓ Learn how to use your camera's controls and indicators. You do not have to become an expert, but you should be familiar with basic functions and settings. It is rarely true that "all you have to do is point and shoot." Familiarize yourself with power, zoom, focus, audio, and so forth through practice before you start recording real data. Some functions, such as autofocus, can be quite useful, but they may depend on good lighting. They may have to be turned off if you are shooting through a glass window, to prevent the camera from focusing on the glass rather than targets in the room. Similarly, auto-volume control and auto-brightness sometimes produce relatively useless, but distracting, adjustments while you are recording. It is sometimes better to turn them off and set levels manually. Some settings, such as "white-balance," may be unfamiliar but can be quite useful.

✓ If possible, use line (plug-in) power rather than battery. It is just too easy to overlook a low battery and lose power at a critical moment. When using line power, tape the entire length of the power cord to the floor with duct tape. This avoids someone tripping over the cord in the dark and (1) injuring themselves, (2) distracting participants in the test area, and/or (3) pulling the power cable out of its socket.

✓ Make sure you can tell what the infant is doing if he or she is playing close to the wall on which the camera is mounted. If objects to the left or right, or below the camera, are out of sight, a wide-angle lens adaptor might be helpful.

✓ Monitor sound through an earphone throughout the SSP to make sure you are recording sound as well as video. This also lets you know whether the felt baffle hiding the camera lens is rubbing across the microphone and needs to be pushed away.

✓ Train someone as a backup videographer in case you are unavailable.

✓ During recording, think of yourself as communicating with the researchers who will be scoring your recording. Ask yourself what the scorers need.

✓ Permanently identify each video record by writing the participant's ID number, the date, and the child's first name and birthdate on a sheet of

paper or a whiteboard before the participants arrive, and have an assistant inside the test area display this to the camera for 15–20 seconds at the beginning of the video record. This prevents losing track of the participant's identity in the event paper labels become faded or lost.

✓ When recording, try to keep the whole infant in the frame most of the time. Focusing too closely on the upper body or facial expressions will miss small but significant movements (e.g., tension movements or kicks while being held). The infant does not have to be centered in the frame. Maintain enough margin ahead of the infant to make context clear and to anticipate quick moves that would put it out of frame. This also reduces the need to move the camera in response to inconsequential moves. SSP scoring rarely depends on closely zoomed shots.

✓ You can pan quickly from the infant to the mother and back to show scorers where the mother is and whether she is making inviting gestures or offering a toy over a distance. Think of these as footnotes to the scorer. Pan, hold for a count, "1-2," and back to the infant. The scorer should not lose track of the infant's behavior. Much of the information about what he or she is doing over a distance can be picked up from the audio or from a pan to her after the infant has responded.

✓ Move the camera as little as possible. If you have the infant in the frame (whether in the middle of the room playing, at the mother's chair, or at the door) with some buffer area ahead of him or her, that is fine. Keep pans to a minimum; zooms near zero.

✓ Make a "footnote pan" to show key transitions in the procedure. For example, you do not need to track the mother walking across the room to leave, or keep the camera on the door, waiting for her to return. But make sure that the scorers can tell when she has left and when she returns. If the stranger delays leaving the room for some reason and is not in camera view, a quick pan and return to the infant will let the scorers know; otherwise, a look toward the stranger might be interpreted as looking away from the mother.

✓ Be sure to capture the infant's reaction to reunions. The details of an infant's response to the mother's departure are not a major factor in scoring. In contrast, some scoring (particularly avoidance of physical contact and interaction) depends critically on the infant's behavior as the mother enters and during the next 15–30 seconds. Scorers must have this in full. Other important behaviors during reunion episodes play out over the full 3 minutes; these often involve behavior when the infant is being held or squirming to be put down. Much of the key behavior, too, can be fleeting. Tight close-ups during reunion risk losing important information about posture, efforts to be put down, kicks, and so forth. Again, it can be useful for videographers to sit in on some SSP scoring in order to understand what scorers are looking for.

✓ If the infant attempts to touch the camera lens, keep it motionless; there is a chance he or she will lose interest. If the infant grasps the baffle or the camera lens, turn it all the way to one side and hold it firmly until the infant can be interested in something else. If the stranger is present, she should try to direct the infant's attention to the toys. If necessary, the videographer should speak to the mother through the camera port: "Please try to interest him (or her) in the toys." The less you move the camera, the less likely you are to attract the infant's attention in the first place. Locating the camera port approximately 3 feet above the floor and mounting the camera lens 5–6 inches above this, along with a dark cloth baffle around the lens, affords a good video angle and rarely attracts the attention of 1-year-olds. If you are working with older children, locate the camera port (or have a second port) somewhat higher.

✓ Back up your recordings and keep the backups separate from the originals! If you record to a computer hard drive or to a solid-state memory card inserted into your camera, it is a trivial matter to make copies—immediately or on a schedule. Extra media are inexpensive and there is no loss of quality in copying digital recordings.

DON'Ts

✗ Don't get bored. Stay in the game. Equipment or procedures can go off the rails at any time. Lapses risk compromising scoring. Often, there is no way to know if something is important until after the SSP is complete and scoring begins.

✗ Don't let backlighting create overly dark images. Most video cameras automatically reduce sensitivity in response to bright light. As a consequence, anyone located near or passing in front of the light source will be rendered as a dark silhouette with few details. Unless they are very high on the wall, windows to the outside should be covered with foam-core or aluminum foil, or opaque paint.

✗ Don't make noise. The infant can hear movements and conversations through the camera port. These may upset or attract him or her to the camera.

✗ Don't zoom so close that you cannot see the context in which behavior occurs.

8 Does the SSP entail any special problems related to informed consent? During her Baltimore study, Mary Ainsworth avoided media coverage of her work in order to avoid biasing recruitment or prompting participants to raise questions for which, at this early stage in her work, she did not have answers. Interestingly, she was thinking in terms of local media. National media were the farthest thing from her mind and, of course, there was no Internet or video recording. (See below for discussion of privacy issues.)

It has been quite some time since we heard of anyone's institutional review board having significant reservations about the SSP per se. Informed consent is another matter. There are clearly issues here regarding the use of video records in the months and years after the procedure. The narrowest informed consent documents simply outline the procedure and risks, and ask the parents to indicate that they agree to participate. In our experience, it suffices to explain that the mother (or other caregiver) and infant will be videotaped during a series of 3-minute episodes that allow you to observe (1) mother and infant together in a room with age-appropriate toys, (2) play with a female research assistant (in the mother's presence), (3) play with the female research assistant alone, and (4) two episodes in which mother leaves the infant alone or with the female research assistant while she watches with the experimenter through a one-way observation window or on a computer monitor. Explain that each of the episodes is designed to mimic situations a 1-year-old encounters regularly in everyday life. Explain also that approximately 50% of infants cry during one or both separation episodes and that the separations will be concluded if the infant cries continuously for 30 seconds, or upon the mother's request. It is also relevant that the SSP has been in use in Western cultures for over four decades without a single published report of an adverse effect. In other cultures it is wise to have pilot data on the suitability of SSP (see Meehan & Hawkes, 2013).

We find it helpful to mail or e-mail mothers a copy of our approved informed consent letter in advance of the SSP. We explain that we will gladly answer any questions they have about the procedure. We also explain that mothers need not memorize the details in the consent form, that we will review it with them and remind them of the procedures when they visit campus.

More difficult issues have to do with the scope of informed consent. As explained earlier, we favor a very descriptive account of the SSP when soliciting participants' informed consent. In our view, a somewhat broader formulation is required if the recordings from the SSP are to be used for educational purposes (i.e., training and/or teaching). In fact, training and teaching raise rather different issues, especially regarding confidentiality. Training is often limited to a small number of students within one laboratory, who must be instructed in their professional responsibilities regarding confidentiality. Confidentiality is even more complicated in light of the ease with which video materials can be posted (even without the researchers' permission) on the Internet.

The issue of privacy/confidentiality is complicated by the fact that students and research samples are often drawn from the same community. Thus, one or more students might be able to identify participants from SSP recordings. We cannot hold a student who identifies a research participant in class to the level of professional responsibility we assume for faculty and research trainees. The privacy issue here is best addressed by editing the recordings to obscure the mother's identity. Short of this, one can obtain SSP examples from a different community or from SSP material recorded years or decades earlier.

A final issue has to do with what, exactly, parents have agreed to even if the informed consent includes training and instruction, and even broadcast applications. The problem is that although they are aware of their own behavior, and thus have a sense of what might have been recorded, they have no idea what might be said in commentary attached to the video after their participation has ended. Researchers should be alert to the difficult issues this raises and keep in mind that Mary Ainsworth's scoring for the SSP assesses *normal individual differences*. Inferences to clinical issues require a broader assessment.

9 Do SSP classifications measure temperament? The idea that SSP classifications reflect infant temperament rather than confidence in a specific caregiver is rooted in the mistaken (and inexplicably persistent) belief that the SSP's secure versus insecure distinction maps closely onto crying versus not crying during the separation episodes (e.g., Chess & Thomas, 1982; Kagan, 1982). The case against this hypothesis is decisive (e.g., Sroufe, 1985). This is not to say that an eye attuned to temperament might not see some useful clues in the course of the SSP. It is, after all, a relatively rich behavior sample across a variety of contexts. Our point is merely that temperament variance is pretty much invisible when the SSP is viewed through the lens of Mary Ainsworth's interactive behavior scales and the ABC classification system.

Consider the evidence. First of all, about half of secure infants (mostly B_3 and B_4) and a similar proportion of insecure infants (mostly C's but also some A_2) cry during the separation episodes. (Interestingly, secure (B) infants cry significantly *less* than either group A or group C at home, with less crying associated with more sensitive and responsive care. This is not what temperament theorists imagine in the SSP and is the opposite of what we would expect if secure infants were temperamentally inclined to negative affect.) Second, temperament theory posits stable individual differences in behavioral/emotional style across contexts. Yet infants' SSP classifications with the mother and with the father are not significantly related (e.g., Main & Weston, 1981; Grossmann, Grossmann, Huber, & Wartner, 1981). Surely, an infant's temperament is not different when interacting with different partners. Yet different experiences with different partners can well lead to different expectations about availability and responsiveness. Third, SSP security moderates a wide range of links between temperament and socialization outcomes (Vaughn & Shin, 2011). Obviously, a variable cannot moderate itself. Finally, aside from modest correlations between SSP security and positive affect, SSP classifications are not significantly correlated with widely used temperament assessments (Vaughn, Bost, & van IJzendoorn, 2008). The modest correlation with positive affect simply reflects that infants who experience more sensitive and responsive care engage in fewer contentious interactions. In brief, though there may be some temperament correlates of specific behavior in the SSP, the ABC classifications do not measure temperament.

10 Are SSP classifications stable across time? Beginning in the late 1960s, the stability of individual differences in general was a major point of contention between traditional personality/developmental psychologists and learning theorists influenced by Walter Mischel's landmark critique, *Personality and Assessment* (1968). Particularly relevant for attachment theorists, Masters and Wellman (1974) published a detailed analysis and critique of attachment stability data in *Psychological Bulletin*. Their conclusion, that attachment behavior is not stable over months, days, or even minutes, was consistent with Mischel's broad critique of the individual-differences paradigm and could have been a decisive blow to attachment research. Sroufe and Waters (1977) detailed the limitations of counting discrete behaviors and the advantages of taking an organizational perspective instead. Shortly thereafter, Waters (1978) replicated Masters and Wellman's (1974) results in data from 50 infants seen in the SSP at 12 months and again at 18 months. He then scored the same data using Mary Ainsworth's interactive behavior scales and ABC classifications, and found significant stability in the full range of variables. The results in the data Masters and Wellman (1978) reviewed were artifacts of observing discrete behavior, ignoring context, and sampling too briefly to obtain reliable estimates of infants' typical behavior. Subsequently, attachment stability has been examined in nearly 30 studies. A meta-analysis indicates that "attachment security is moderately stable across the first 19 years of life" (Fraley, 2002, p. 123). In addition, multivariate modeling suggested that the data are best explained in terms of an early prototype that is activated in the context of new experiences and contributes to the quality of those interactions (Fraley, 2002, p. 135). This model corresponds closely to Bowlby's view that early experience tends to be stable over time, yet remains open to change in light of experience.

From the point of view of attachment theory and development in general, the issue has never been stability per se but the coherence of individual differences over time and context (see Sroufe & Waters, 1977). With the challenge of learning theories behind us, stability per se is of much less interest than research on how secure base use and support evolve across time, how they are represented in memory, and how mental representations influence current behavior, expectations, and emotions. On a practical note, it would be very useful know whether SSP classifications are sensitive enough to change in response to seemingly effective individual or family therapy with caregivers or even the Circle of Security (Hoffman et al., 2006) or ABC interventions (Dozier & Bernard, 2019). Or might home observations detect improvements in secure base behavior without corresponding change in ABCD classifications. Obviously, the SSP is more economical, and often more practical, than extended home observations and would be preferable, as long as the risk of false-negative results is low.

11 Can I use the SSP to determine whether an infant is attached to a particular individual? In brief, the SSP was designed to assess the quality of

an established attachment relationship, not whether such a relationship exists. On the basis of her observations in Uganda and Baltimore, Mary Ainsworth concluded that attachment emerges over time, not at a discrete moment in time. Proposed indicators for the presence of an attachment relationship, such as recognizing the mother, stranger fear, and separation protest, proved too susceptible to the infant's state and to situational influences to serve as useful criteria. Accordingly, Ainsworth spoke in terms of attachment becoming increasingly consolidated rather than present or absent, and scheduled SSP assessments for an age (12 months) at which her healthy, home-reared infants were actively using their mothers as a secure base (and yes, as a haven of safety; see FAQ 4). Where cognitive and/or motor benchmarks are delayed, researchers have often scheduled SSP assessments somewhat later to insure developmentally appropriate assessments (e.g., Cicchetti & Serafica, 1981; Waters & Valenzuela, 2000).

If one wanted to determine whether an infant is "attached" to a particular figure, it would probably be useful to focus the question on whether home observations indicate the presence of a well-consolidated pattern of using the adult as a secure base. That is, look for exploration away from the adult, with signs that the infant continues monitoring his or her location and activities. Look for infant signaling or retreat to the adult when uncomfortable or distressed. And look for what Ainsworth called an attachment–exploration balance over time and contexts. Do not be fooled by an infant's mere momentary preference for a new person once acclimated to him or her. Infants are often quite interested in new figures, especially if they are patient and playful, and the setting is benign.

SSP behavior is not very useful for deciding whether an attachment bond exists because (1) discrete behaviors are too susceptible to state and context, (2) the episodes are too brief to reliably estimate typical behavior, and (3) mere familiarity with the adult can be enough to initiate interaction and even comfort seeking. Some researchers have assumed that the mere ability to assign an ABCD classification implies the existence of a bond, even to nonprimary caregivers. This assumes that blind coders assigned SSPs conducted with nonattachment figures, that is, adults known to the infant only through multiple, brief, noncaregiving contacts, would reliably designate them "not classifiable." (Note: It is the % classifiable, not the distribution of classifications that matters here.) Given our boundless ability to see patterns and draw analogies in all kinds of material, this might not be a good bet. Thus, secure base use in naturalistic settings seems the most compelling evidence.[4]

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[4]In order to effectively keep the scorers blind of the hypothesis and conditions, the SSPs should be conducted with the same personnel and in the same settings. Unfortunately, this largely precludes using existing SSP data as the "attached" group. In addition, scorers encountering "not classifiable" cases at a rate anywhere close to 50% would almost certainly raise questions about the population under study or develop hypotheses about the nature of the manipulation. Thus, the base rate of cases seen with nonattachment figures should be kept plausibly low (e.g., 10%).

12 Can I use the SSP to assess attachment security in cross-cultural samples, samples that have experienced extensive out-of-home care, and others that are different from the participants in Mary Ainsworth's Baltimore study? If you accept Mary Ainsworth's view that home behavior is the primary criterion against which the SSP's validity is measured, then it seems logical to require that SSP data from other populations be similarly related to secure base behavior at home before interpreting it in terms of attachment security. The logic here is pretty hard to escape. And considering the effort and expense, not to mention the potential theoretical or clinical significance, of work with the SSP, it seems reasonable to collect this kind of validity data. Moreover, we can learn quite a bit from engaging infant–caregiver dyads on their own turf, that is, by not limiting ourselves to the SSP. The Attachment Q-set (AQS, Waters & Deane, 1985; Vaughn, Waters, & Teti, Chapter 2, this volume) was developed specifically to make this task easier than in Ainsworth's day and more rewarding. Nonetheless, quite a few researchers have used the SSP in new populations without validation against blind home observations in pilot work or a portion of their sample. It is hard to place much confidence in such work.

These concerns apply as well when adapting the scoring system to take age or rearing practices into account. The problem is not that this cannot work, only that one does not know whether it has worked without comparing the adapted SSP scoring to secure base behavior at home. Posada (2006) provides a useful illustration. He conducted extended home observations of healthy, middle-class, 3-year-olds with their mothers and used the AQS to assign security scores. He then conducted the SSP and arranged the authors of the MacArthur Preschool Scoring system to blindly classify each case. In the end, the adapted SSP scoring was not related to secure base behavior at home. Nonetheless, research with the MacArthur adapted SSP has identified a wide range of competence-related, if not attachment-related, correlates. While these results put on hold the notion that the adapted SSP is strictly parallel to the Ainsworth procedure, they raise interesting questions that deserve high priority in new research. The fact that a respected journal was willing to publish this validation study, even when it reported "negative" results, is an encouragement to this kind of work.

13 Can the SSP be abbreviated? We have two comments. First, why expend the resources and effort to set up appropriate laboratory space, train assistants and coders, recruit participants, and conduct the procedures, and perhaps collect extensive data using other measures, only to put the entire enterprise at risk to save a few minutes on the SSP procedure and scoring? Second, as explained in the earlier "Strange Situation Practique" section, there is a clear logic to the order of SSP episodes. In light of this, it is hard to see how dropping or abbreviating some of the episodes would be an improvement. In any event, the changes would forfeit the validation in relation to home observations, which would need to be rechecked. This hardly seems economical.

14 Are there really discrete patterns of attachment? And what are the implications of the discrete versus continuous issue for scoring and data analysis? Mary Ainsworth (1978/2015, p. xli) expressed the view that the ABC patterns observed in the SSP reflect the different ways in which infants have organized their attachment relationships. Her preference for classifications reflected her view that (1) description is a primary function of measurement, (2) some phenomena are not easily captured on a continuum, and (3) measurement of complex phenomena should reflect their many facets. She was well aware that measurement on multiple facets or dimensions could be summarized using weighted linear composites. However, she felt that, in the context of discovery, it was best to work with patterns (profiles) than with composites. There is considerable wisdom in this view and, to researchers who are expert in the ABC classification system, the classifications are more labels for behavioral profiles than entities in themselves.

The decision to represent attachment individual differences as discrete categories versus continuous variables has practical implications for research design and data analysis. If attachment security is, in fact, a continuous variable, then assuming that all infants below some cutoff score (on a single variable or a composite of several variables) are equally insecure, and all infants above the cutoff are equally secure, discards useful variance and reduces statistical power. If, however, attachment individual differences are inherently taxonomic, then much of the diversity within secure and insecure groups is irrelevant (or unreliable) and incorporating all of this diversity into a continuous variable can only reduce statistical power. Richters, Waters, and Vaughn (1988) have provided discriminant function weights for scoring secure versus insecure and avoidant versus resistant SSP classifications as continuous variables. These weights could be used to compare results based on ABC classifications with parallel analyses of the same data scored as continuous variables.

Waters and Beauchaine (2003) have argued that attachment theory neither predicts nor requires that individual differences fall into discrete categories. Like most phenomena psychologists study, attachment individual differences arise from multiple influences acting in concert. In such cases, the central limit theorem is in play. Thus, most of the constructs we study are normally distributed, continuous variables. Not knowing the "true" situation regarding discrete categories or continuous variable, the latter is usually the best bet. If this is the right choice, new analyses using continuous variables should have greater statistical power.

With the emergence of taxonomic search methods pioneered by Paul Meehl (1965; Waller & Meehl, 1997; Ruscio, Haslam, & Ruscio, 2013), several attachment researchers have examined large datasets from different age groups to learn more about the structure of attachment individual differences. Their results paint an interestingly complex picture. Fraley and Spieker (2003a, 2003b) conducted taxonomic analyses on a large sample of SSP data and concluded that attachment individual differences are best viewed as a continuous variable at this early age. This makes sense in that, at this age, most

infants in Western societies have a single primary caregiver whose behavior plays a significant role in organizing and helping consolidate their secure base behavior and the attachment–exploration balance.

By middle childhood, attachment has advanced from primarily sensorimotor representations to be less dependent on context and caregiver support to use a secure base effectively. During this time, the caregiver's secure base support expands to include co-constructing script-like attachment representations (Posada & Waters, 2018; H. Waters, Steiner, Zaman, Apetroaia, & Crowell, 2018). In light of this close parent–child collaboration, and the fact that script-like representations tend to be acquired as a package rather than element by element, it is interesting that taxonomic analyses by T. Waters et al. (2019) indicated that middle childhood attachment representations fall into discrete categories (expectation of instrumental help vs. elaborated secure base script). By adolescence, greater experience with the complexities of parent–child relationship, experience in other relationships, and the opportunity to observe other children's relationships elaborates the basic secure base script to incorporate a wider range of interactions in a diverse context. Accordingly, taxonomic studies of the AAI suggest that adolescent and adult attachment representations once again fit a continuous distribution model (Fraley & Roisman, 2014; T. Waters et al., 2015).

So, what to do? In general, it makes sense to employ measures and analyses that are familiar to your target audience. Discrete categories can be useful tools (useful fictions) if you (1) value the descriptive power they offer as shorthand for behavioral profiles, (2) are seeking, or are open to discovering, new facets of attachment relationships, or (3) work in an applied context in which categories are likely to communicate more effectively. Just keep in mind that category labels are shorthand for profiles across several behaviors. If you fall into viewing them as real entities, then you had just as well combine the behaviors into a single weighted composite. Meanwhile, we look forward to theoretical and empirical research to clarify the mechanisms that consolidate attachment representations after infancy and elaborate middle childhood representations in adolescence and adulthood. It is also important to reanalyze some existing analyses of ABC classifications as continuous variables to see whether the promised increase in statistical power is great enough to be of practical significance. Finally, we look forward to new work that takes a skills and modeling approach to secure base-related phenomena (e.g., Petters & Beaudoin, 2017). Much of this work is likely to assess attachment individual differences as continuous variables.

15 Are SSP classifications traits? Certainly not in the classic sense, though there is probably some yet to be detailed generalization of early attachment-related expectations to some relationship contexts beyond the infant–mother relationship. The SSP classifications reflect an infant's expectations in the relationship with a particular partner. As mentioned earlier, infants' SSP classifications with the mother and with the father are not significantly related

(e.g., Main & Weston, 1981; Grossman et al., 1981). In addition, the SSP is too brief to provide reliable estimates of an infant's typical behaviors. Instead, the SSP is a test situation, and the observed behaviors are best thought of as predictive signs, to be used as when as a physician, recognizing a red spot on the retina, considers the possibility of diabetes (a metabolic disorder, not a disorder of the retina). Similarly, avoidance in the SSP predicts poorly organized secure base behavior, not more avoidance, at home. Even if we limit ourselves to the relationship domain, there is little evidence that SSP behavior or classifications reflect or predict similar behavior outside the SSP or across age. Where there are similarities across context and across age, they are in skilled or less skilled secure base use, not in trait-like persistence of behavioral styles.

Generally speaking, traits are more coherent and pervasive in our thinking than in actual behavior. We see prototypes, selectively recall confirming instances, and use trait language more often than we should. Consider the verbal associates of a term such as *avoidant*—disengaged, indifferent, risk averse, and so forth. There are almost certainly studies attempting to (and marginally managing to) relate infant or adult attachment to each of these, even though the links reflect only semantic associations, not the logic of attachment theory. It is not clear how such work could advance attachment theory or guide useful applications.

16 How do the attachment relationships of infants classified A versus C in the SSP differ? This is a hard one. As mentioned earlier (FAQ 14) Mary Ainsworth viewed SSP classifications as reflecting different ways in which infants organize their secure base relationships with specific partners. At the same time, she was quite clear about the distinction (see FAQ 1) between the inner, representational/relational attachment phenomenon and the behaviors in which it was manifest. She knew that in many respects A and C infants' behaviors at home were more similar to each other than to infants classified B (Ainsworth et al., 1978/2015, p. 124). Moreover, we have not found distinctive AQS patterns of attachment behavior to distinguish infants classified A versus C in the SSP (e.g., Vaughn & Waters, 1990). At best, they seem similarly inconsistent and ineffective at using the mother as a secure base.

Although the published attachment literature is a treasure trove of significant statistical tests on A versus C infants, it is difficult to formulate a clear explanation of how these two patterns arise. In part, this is due to the fact that the number of infants classified A or C in a particular study is usually small compared to the B group. This might be addressed through meta-analysis, but there has to be a coherent literature to analyze. Unfortunately, foundational attachment theory (as opposed to post hoc explanation of significant A–C differences) does not provide much guidance. Indeed, as we read attachment theory, it is agnostic regarding how insecure attachment is manifest one pattern, two, or more, in home behavior or the SSP. The lack of theoretical guidance may account for the lack of programmatic research on A versus C classifications, their origins, and their external correlates.

One possibility is that the A versus C classifications are not, so to speak, patterns of attachment but something else. For example, assume infants' attachment relationships differ primarily in terms of their ability to consistently and effectively use their primary caregiver as a secure base. In addition, suppose that every infant could also be located on a separate individual-differences dimension somewhat along the lines of the internalizing–externalizing dimension familiar from personality psychology and clinical diagnosis; call it "coping style."

First, consider infants classified B (secure). Faced with threat or distress, these infants would have ready access to a well-consolidated secure base response repertoire that lets them (1) do something (being unable to act, itself, is stressful), and (2) exit the bad situation. Having escaped the situation, the secure infant's internalizing–externalizing coping style does not come into play. Thus, the difference between secure (B) and insecure (A or C) infants reflects access to secure base responses. Now, consider infants classified A (insecure–avoidant) versus C (insecure–resistant). In the face of threat or distress, none these infants has ready access to a secure base response that would facilitate escaping or coping with the situation. With no ready escape via secure base behavior, individual coping styles come into play. Some would tend more toward internalizing responses, others toward externalizing responses. Thus, the difference between B and non-B infants might be different in kind than that between A and C infants—the former related to attachment security, the latter reflecting different coping styles among similarly insecure infants.[5]

Of course, an infant's location on the hypothesized coping style dimension would not be much in evidence during home observations unless some sort of significant threat or distress arose. This happens, but not often enough to parallel the challenges built into the architecture of the SSP. Thus, the salience of the A versus C distinction in the SSP and the difficulty in finding correlates of the A versus C distinction in home observations. We are agnostic on the nature of variables that might underpin the A versus C classifications in the SSP. Our point is simply that Bowlby–Ainsworth attachment theory does not predict specific patterns of individual differences among insecure infants, and we would do well to keep an open mind about the constructs that might explain them.

17 What to think about subgroups? There is nothing in attachment theory, and not much empirical data regarding antecedents and correlates, to support the idea that the subgroups within the A, B, and C classifications

[5]In principle, though wholly outside the realm of ethical research design, B (secure) infants' standing on the coping style variable might become evident if they were confronted with an utterly inescapable stress (e.g., several additional separation episodes) in a modified SSP. With their secure base response option blocked, perhaps, their individual coping styles would come into play, some tending toward internalizing responses, others toward externalizing responses. That is, secure infants might tend toward A or C classifications in later reunions.

reflect substantively different ways of organizing attachment relationships. When Mary Ainsworth was developing the ABC classification system, she recognized that there would be diversity around any prototype she defined. Rather than forcing every case into one of too few categories, she assigned subgroup (subscripted) classifications to infants who did not squarely fit the ABC prototypes. With the accumulation of cases, it became clear which of these variants occurred often enough to include in the ABC classification system. One group, B_4, was only identified in cases recruited after the main longitudinal study and were thus not observed at home.

Even after *Patterns of Attachment* was published, Ainsworth was reluctant to dispense with the subgroup designations. She considered it almost inevitable that new patterns would be discovered when the SSP became more widely used, and when research expanded to include different populations. Today, over 40 years later, it seems less likely that research will discover new groups or subgroup (except perhaps in cultures very different from our own). Nonetheless, the subgroups remain a useful part of the classificatory system, if only as an aid to consistent assignment to the major ABC groups. Even infants destined for the same ABC classification are not identical. Insofar as the variations around the ABC prototype recur, it is useful for coders to know that there is more than one way to earn any of the ABC classifications. For example, some B infants who do not cry in response to separation, who show little proximity seeking and perhaps even some avoidance in the first reunion episode, seem good candidates for the A (avoidant) classification. However, infants classified A maintain or increase their avoidant behavior in the second reunion, whereas infants whose avoidance declines or disappears, and who may even show a bit of approach or even fussing, are assigned to group B_1 or B_2 if avoidance gives way to proximity seeking.

Similarly, it is useful for coders to know that an infant can show some A-like behaviors in the initial episodes, yet belong in the B group if these indications decline and more B-like behavior appears in the second, separation–reunion sequence. Of course, if subsequent research on caregiving antecedents or external correlates suggested that the early, low-keyed avoidance was a better fit to Group A, then there was option of reassigning the B_1 classification to the A group (presumably A_3). This strategy reflects Ainsworth's commitment to an ethological/observational approach. As she often told student observers, "We'll let the data fall where they may; the world is always more interesting the way it really is than in [a scorer's] theory" (personal communication between Everett Waters and Mary Ainsworth, 1972).

18 Does *Patterns of Attachment* provide enough information for me to score SSP scales and assign classifications without other training? No. You need to work with an expert to become a skilled coder. Not that *Patterns of Attachment* does not provide enough detail. It is one of the most detailed descriptions of infant behavior ever published. It is just that to be a good scorer, you have to (1) learn how to look at behavior (as discussed earlier in

this chapter in the section entitled "Behavior: Seeing versus Observing"), (2) learn what the verbal descriptions in the coding instructions refer to in actual behavior, (3) see enough examples of relevant behaviors to make important discriminations, and (4) establish blind agreement with expert coders. These require access to a rich set of training materials and an opportunity to work with a trained coder. Fortunately, the attachment training group at Minnesota's Institute of Child Development has offered summer SSP scoring seminars every summer for over 20 years. Information about enrolling is available online at *www.attachment-training.com*. If there were an easier way, we would recommend it. Although it might be possible to develop self-training materials from video recordings of conventional training sessions, this would require quite a bit of editing and we might not have the permissions required to put the recorded examples online.

19 Is it a good idea to pay experienced coders to score my SSP videos? We don't recommend hiring SSP coders in lieu of learning something about coding yourself. You are in a better position to maintain quality control, formulate hypotheses, analyze, and report data if you know the ins and outs of both the interactive behavior scales (proximity seeking, contact maintaining, avoidance, and resistance) and the classification criteria. If you engage someone to do the scoring for you, he or she will bring back exactly what you contracted for—no insights, no surprising observations, nothing about behavior unrelated to the scoring, not even details that went into their scoring decisions. That said, the Minnesota attachment training team is a good place to turn for help locating professional scorers. This chapter and release of the first paperback edition of *Patterns of Attachment* provide useful background for those wishing to use the SSP in their research. However, as mentioned in the previous FAQ, they are not enough.

20 Can I assign SSP classifications after viewing only the two reunion episodes? The infant's level of exploration and interaction in the preseparation episodes is a benchmark against which a scorer gauges exploration in the separation episodes and recovery in the reunion episodes. Certainly, some cases can be correctly classified from reunion behavior alone. However, there would inevitably be more than a few errors. We recommend that you do not base publications or clinical assessments on reunion episodes alone.

21 Can I assign SSP classifications without first scoring interactive behavior scales? The interactive behavior scales (proximity seeking, contact maintaining, avoidance, and resistance) provide the reference points and criteria for assigning ABC classifications and subgroups. They are very interesting to work with and remind you over and over what a great eye Mary Ainsworth had for behavior. They also illustrate the advantages of building scales by organizing actual behavior descriptions rather than creating them from memory and purely rational/semantic distinctions. Working with typed

vignettes that describe actual behavior allowed Mary Ainsworth to assign rather different behaviors to the same level on a scale. Consider the options for Clear-cut but not persistent avoidance: (5a) "Baby looks when mother return but gives no greeting"; (5b) Baby does not look when mother returns; she eventually gains his attention but he remains unresponsive"; and (5c) "Baby greets mother when she returns but then either markedly turns away or tries to go out the door." When the full range of reunion behavior is examined, it becomes clear that each of these deserves a lower score than marked, persistent avoidance (Avoidance = 6), but a higher score than brief avoidance or persistent low-keyedness (Avoidance = 4). Thus, though rather different, they are all assigned scores of 5.

This kind of detail and grounding in actual behavior enables coders to make sense out of what, otherwise, seem to be overwhelmingly diverse responses. It is also endlessly interesting, as if someone had given you the key to unlocking infant behavior. At the same time, scoring interactive behavior, especially in the reunion episodes, is slow work and takes time. It is not simply a matter of viewing the episode and assigning scores. Coders routinely scroll back and forth over brief bits of video, making sure of the order in which things occurred, determining whether a maternal vocalization occurred before or after the child looked at her, and on and on. This was difficult in Ainsworth's initial work, when coders had to rely on typed transcripts of two simultaneous verbal descriptions. Video recording is a tremendous help. Still, this level of analysis is largely out of reach if you have viewed a single episode without pausing or reviewing the recording. All the more so if you watch all eight episodes straight through on videotape, much less if you only observe the SSP live.

A few infants show such strong positive responses on reunion, or such clear-cut and persistent avoidance throughout, or anger, such as slapping at toys the mother offers without following up with efforts to seek contact, that their classification is obvious. But the majority require the kind of close analysis ensured by scoring the interactive behavior scales. It is also useful to have the interactive behavior scores when investigating classification disagreements. In brief, we have never reported SSP classifications that were not built on scoring the interactive behaviors and crying in all eight episodes.

22 Why am I not finding as many B_3 infants as Mary Ainsworth did? In Ainsworth's Baltimore study, nearly half of the infants (45/106 = 42%) were classified B_3. Only a quarter as many (11/106 = 10%) were classified B_2 (Ainsworth et al., 1978/2015, p. 230). Today, B_2 classifications often equal or outnumber B_3, sometimes by as much as three to one. This is not to say that infants today are less secure, only that the strong proximity seeking and contact maintaining in response to brief separations, characteristic of infants classified B_3, occur less often.

There are several common themes in the B (secure) classification. The infants show strong interest in exploring the room and the toys, often with

clear indications that this is facilitated by their mother's presence. They may or may not cry or search when the mother leaves the room. But when she returns, they show more than a casual greeting and no significant avoidance or resistance. The primary difference between infants classified B_3 versus B_2 is in the degree of separation distress and the level of contact they seek in the reunion episodes. Infants classified B_2 rarely cry in response to separation. They greet mother when she returns and accept contact if picked up, but they are less active in seeking contact and clinging, and are less likely to resist being put down. Like infants classified B_3, they show little if any avoidance or resistance, especially in the second reunion. One might say that they are simply confident that the mother will return.

Several possible explanations for the higher rate of B_2 classifications occur to us: (1) narrative records are less detailed than video recording—today's coders may see finer gradations in the timing and manner of proximity seeking and contact maintaining than when SSPs were scored from narrative records, or (2) infants in the Baltimore sample were home-reared; infants today are more likely to have experienced out-of-home care and might therefore be more acclimated to brief separations. It is also the case that attachment research has branched out from the early focus on healthy, middle-class, home-reared infant to include a wider range of caregiving practices and risk status. If you are seeing not only a change in the ratio of B_3 to B_2 classifications but also a shift in the entire distribution away from the B group, it is possible that there actually is a shift toward more insecure–avoidant behavior in your sample, and some of the excess B_2 infants might be candidates for reclassification as B_1 or even A_1. Another possibility is that infants showing considerable avoidance in the first reunion, then a marked decline in the second, might be considered for a new classification (B_0 or A_3, depending on the antecedents and correlates). Such issues are best resolved collaboratively, by sharing video records and data across projects.

23 What is a satisfactory level of agreement with expert scorers after training and for reporting research results? Establishing agreement with expert coders in an important part of SSP training. New scorers should ordinarily agree on all of the cases in the set of expertly scored SSPs available from the Minnesota training group. Subsequently, it is reasonable to expect coders to agree with the most experienced coder in their laboratory 90% of the time on A, B, C, and perhaps 80% of the time on D classifications. Disagreements with these criterion cases should be discussed and clarified. It is also important to keep in mind that coding skill depends on continuing practice. Skilled coders who have not been scoring SSP data for several years should reevaluate their own agreement with expertly scored SSPs before teaching or serving as an agreement criterion for less experienced coders. Finally, when the SSP is used in very large studies, scoring can be spread over long periods. It is important to conduct blind checks on scoring agreement throughout the course of the study.

24 Can I obtain SSP classifications from AQS data? The AQS was designed to assess secure base behavior at home and other places in which an infant or toddler has some range to explore. Group B infants consistently score higher than non-B or A or C infants. However, we have not found a pattern of AQS items that consistently distinguishes group A from group C. Nor does attachment theory predict or require such differences. As mentioned earlier (FAQ 16), the two insecure SSP groups seem similarly, diversely inconsistent and ineffective at using the mother as a secure base at home.

Regarding the D group, several small studies have reported very low AQS security scores (see Posada, Waters, Vaughn, Pederson, & Moran, Chapter 1, this volume). This is important evidence for the attachment-relatedness of the D classification. SSP behavior that does not fall neatly into one of the ABC classifications cannot be taken as indicative of insecure attachment without validation against secure base use at home. To date, there have been too few AQS-SSP studies, and sample sizes have been too small so far, to explore item-level differences between infants classified D versus non-D and secure-D versus insecure-D. Research on diversity in the D group deserves high priority in new research. Work on behavioral diversity within the SSP can be useful here but ultimately it should be anchored in behavior in naturalistic settings.

25 Is the SSP useful in applied settings such as child custody decisions? Attachment theory and measures have considerable potential to inform psychological work in applied contexts. At the same time, applied contexts are usually complex, and an attachment perspective or assessment alone does not provide a simple solution for a complex, changing situation. Moreover, the best solution for a child or a family at a given point in time may not be the best solution later on. Experienced clinicians are aware of the limitations of their skills and tools, the frailty (as well as resiliency) of individuals, and the uncertainty inherent in the way family life unfolds.

Two concerns in the use of attachment theory in general and the SSP in particular, are that (1) like any tools, attachment theory and assessments can be misunderstood and misused (see Byrne, O'Connor, Marvin, & Whelan, 2005) and (2) attachment assessments can be given undue weight in reports and in judges' decisions. The latter can happen simply because a measure such as the SSP has a scientific pedigree or seems more objective than other sources of information that are more complex, depend on a clinician's experience to integrate and interpret, or seem to complicate rather than simplify the decisions that need to be made. It is also important to keep in mind that validity data based on groups are true on average but do not necessarily apply to every individual.[6]

[6]Some have suggested that atypical attachment behavior in the SSP is understandable or even adaptive in light of their circumstances. This may be an important insight or an instance of what biologists refer to as the adaptationist fallacy. Whether such behavior promises good adjustment or later difficulties should be an empirical question addressed in concurrent and longitudinal research.

In brief, the SSP can play a useful role as a component of a multifaceted assessment that includes parental interviews and mental health assessments, parent–child observations, assessments of the family environment, child health records, review of documents provided by Social Services, and so forth. SSP data *should not be privileged over other sources of information*. Unfortunately, aside from the domains to be assessed, there seems little consensus or standardization of what such assessments should include (Bow & Quinnell, 2002). Thus, it is hard to know the context of other information in which SSP data will be interpreted. Properly used and skillfully explained, the SSP can be a useful window on the extent to which a wide range of influences have impacted primary caregivers and on the coherence of the child's early relationships.

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