

Human Nonverbal Courtship Behavior—A Brief Historical Review

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This article reviews research findings documenting the nature of nonverbal courtship behavior compiled through both observation and self-report methods. I briefly present the major theoretical perspectives guiding research methodologies used in the field and in the laboratory. Studies of verbal courtship, including those conducted via computer, via text messaging, or through personal advertisement, are not included in this review. The article ends by elucidating some key features of human nonverbal courtship behavior that have become apparent after scrutinizing these data.

There's a language in her eye, her cheek, her lip; Nay, her foot speaks. Her wanton spirits look out at every joint and motive of her body. (Shakespeare, *Troilus and Cressida*, Act IV, Scene 5, Line 55)

In this scene from a play by Shakespeare, in which the courtship of Troilus and Cressida unfolds, romantic interest is being conveyed through nonverbal communication. Many experts (Davis, 1971; Eibl-Eibesfeldt, 1971; Mehrabian, 1972; Noller, 2006) have argued that nonverbal behaviors are central not only to the expression of love in established relationships, but also to the expression of romantic or sexual interest during courtship. Cate and Lloyd (1992) argued for a broad definition of courtship in their book of the same name, including relationships that progress to marriage, as well as those that end before marriage (i.e., dating). Their view of courtship is one that sees relationships evolving through interactions between partners who are also influenced by the culture and historical context in which they live. Furthermore, Cate and Lloyd saw the entire process of courtship as inherently interesting for study by scientists. Their work on courtship focused on its history and the models that have been offered to explain interpersonal attraction; they did not address the role of nonverbal behavior. Instead, Cate and Lloyd offered an interpersonal process model that integrates different levels of causes to understand the interaction of partners during courtship.

Nevertheless, as so elegantly portrayed by Shakespeare (1986), there are a group of facial expressions and gestures that are part of human courtship and are commonly labeled “flirting behaviors” by scientists and

nonscientists alike. *Flirting* is defined as “to play at courtship: act the lover without serious intent” (Merriam-Webster’s New International Dictionary, 2002, p. 871) and can be exhibited through both verbal and nonverbal behaviors. Yet Reiland (2009) pointed out that, in the absence of conflicting cues, flirtatious expressions and gestures usually communicate some romantic aspiration. The ambiguous nature of nonverbal communication may convey an advantage to the user, however. Scientists, such as Perper (1989) and Buss and Schmitt (1993), argued that an indirect system, such as one that relies on subtle nonverbal cues, gives individuals an opportunity to assess potential romantic or sexual partners before committing themselves.

With almost 50 years of systematic investigation and continued fascination with the role flirting plays in the scope of human sexuality, it seems a good time to review the evolution of our understanding of nonverbal courtship signaling in humans. In this article, I have several goals. First, I briefly introduce the dominant theories guiding the research methodologies employed to study nonverbal courtship behaviors. Second, I present the literature dealing with the nonverbal aspects of human courtship behavior, focusing particularly on the initial stages, indicating interest in or sexual attraction to a potential partner. I include some studies of how nonverbal behaviors may aid in the maintenance of a relationship or lead to the initiation of sexual behaviors, such as intercourse. In this regard, most of the research in the area of nonverbal courtship signaling is focused on heterosexuals, but I discuss what little work has been done on homosexuals. Third, as part of this review, I point out the functional significance that nonverbal courtship behaviors may have in not only initiating or maintaining sexual or romantic interest, but also in giving power to the user or increasing fun in the relationship, to name examples.

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I have elected to review the investigation of human courtship behavior chronologically because an historical approach will best display both the progress that has been made investigating this topic, as well as territory yet to be explored. As is common in science, researchers often initiated later studies to address issues that arose during earlier projects or to probe deeper into particular phenomena. Using this historical approach, I introduce the early studies that laid the groundwork for the study of nonverbal courtship signaling, but I also discuss recent work in the area. I present two approaches to documenting these nonverbal signals: observations made either in the laboratory or in the field and self-reports made through interviews, essays, or questionnaires about the nonverbal behaviors used to signal attraction. Studies of “pick-up” lines and other verbal components of courtship behavior, including courtship conducted online, through text messaging, or through personal advertisements, are beyond the scope of this article. I end by returning to some key features of the role that nonverbal behaviors play in the early stages of human courtship that have become apparent after one scrutinizes data amassed over 50 years of study.

Theory and Methodology

The strong parallels between the flirting behaviors of humans and the mating interactions of nonhumans prompted one expert (Birdwhistell, 1970) to use the term “courtship dance” to describe the behaviors of both American teenagers and wild turkeys. Given this similarity between humans and other mammals or birds in signaling attraction via facial expressions or posture patterns, it is not surprising that researchers from both the natural and social sciences—anthropology, biology, ethology, psychology, psychiatry, sociology, and zoology—have provided much of the information about nonverbal courtship behavior in humans.

Reflecting the disciplines represented earlier, much of the research on human courtship behavior has been conducted using one of three theoretical orientations: an evolutionary framework, a social learning approach, or social script theory. Of course, many researchers employed more than one theory during the hypothesis development phase of their investigations, as well as when explaining their findings (Moore, 1995; Perper & Weis, 1987). Finally, there are a number of studies that could be considered atheoretical. Often, this research (Schefflen, 1965) was purely descriptive, early work that formed the foundation for later research.

The methodological approaches used by various researchers interested in human nonverbal courtship behavior most often dovetailed with the theoretical orientation utilized by those investigators. Individuals employing evolutionary theory in their work tended

toward observational research, either in the field or in the laboratory, whereas those researchers who framed their understanding of courtship behavior in terms of learning or scripting more often used self-report methods. The self-report formats most commonly employed in studying human courtship have been questionnaires, interviews, descriptive essays, and personal diaries.

Thus, three major theoretical approaches—evolutionary theory, social learning theory, and social script theory—together with a variety of research methods, including self-reports and observations made both in the field and in the laboratory, have helped us piece together the puzzle of human courtship. This process has been and continues to be an important endeavor, given that relationships play such a central role in the lives of humans, bringing tremendous joy and great pain. Although courtship behavior has long been portrayed in literature and in plays, it was not until recently that scientists documented the behaviors that geniuses, such as Shakespeare, revealed so keenly in the actions of lovers.

Human Nonverbal Courtship Research

Observational Studies

A psychiatrist, Albert Schefflen (1965), provided some of the earliest descriptions of human nonverbal courtship behaviors in connection with client–therapist interactions during psychotherapy sessions. Schefflen noted that therapists and clients alike exhibited courtship behaviors and qualifiers of the courtship message. Schefflen outlined four categories of courtship behavior—courtship readiness cues, preening behaviors, positional cues, and actions of appeal or invitation. Courtship readiness cues included behaviors such as higher muscle tone and decreased belly sag, whereas preening behaviors were actions such as stroking hair, fixing makeup, or adjusting clothing. Positional cues included leaning toward the target and orienting the body toward the recipient, but closing off other individuals. The last category was actions of appeal or invitation—for example, *palming*, in which the signaler displayed the open wrist and palm of the hand. Other behaviors Schefflen described as invitational were casting flirtatious glances, holding another’s gaze, and rolling the pelvis. It appeared to Schefflen that these indicators of sexual intent were qualified or negated by opposing behaviors, such as yawning or orienting the body away from the target, and that this was, in part, due to the fact that courtship behaviors were being exhibited in an inappropriate context—psychotherapy sessions. Schefflen, therefore, denoted these behaviors as “quasi-courtship” behaviors, and he argued that they were not to be taken seriously as signals of sexual interest. No examples of quasi-courtship behaviors were found in a later study

of therapy sessions at a clinic, but instances of quasi-courtship behaviors did appear in a majority of sessions in an aftercare unit (Veague, 1974). Following Schefflen's revelation of their existence, therapists were using quasi-courtship behaviors as a therapy technique in the 1970s. Veague discussed both positive outcomes as well as misuses of that strategy.

Seminal reports gathered from fieldwork included the work of two zoologists (Birdwhistell, 1970; Morris, 1971). In this regard, Ray Birdwhistell drew comparisons between the courting behavior of humans and other species. In fact, he saw the behavior of American adolescents as much like the courtship dance of the wild turkey or peacock. Birdwhistell suggested 24 steps in a particular sequence from initial male–female contact to a fully intimate, sexual relationship. Although he did not list the steps in his book, *Kinesics and Context*, Birdwhistell portrayed the steps and counter-steps as having a coercive order—for example, a boy who takes a girl's hand must wait for her to exert pressure on his hand before he can intertwine their fingers. Birdwhistell labeled individuals as “fast” or “slow,” not in terms of the total amount of time spent progressing through the steps, but rather to what extent the person skipped steps or reversed the order. Furthermore, it appeared to him that it was most often the girl who was responsible for the first move. In contrast, Morris proposed 12 steps that couples in Western culture go through, from initial contact through intimacy. He indicated that the steps have an order that usually is followed in female–male relationships. The steps Morris outlined are as follows: (a) eye to body, (b) eye to eye, (c) voice to voice, (d) hand to hand, (e) arm to shoulder, (f) arm to waist, (g) mouth to mouth, (h) hand to head, (i) hand to body, (j) mouth to breast, (k) hand to genitals, and (l) genitals to genitals or mouth to genitals. One who skips steps or fails to respond to a step may be seen as fast or slow. He agreed with Birdwhistell that it was the woman who most often regulated the movement from step to step.

Eibl-Eibesfeldt (1971) used two approaches to describe flirting behavior in people from diverse cultural backgrounds (Balinese, Papuans, French, and Wakiu Indians). Employing a camera fitted with right-angle lenses to film people without their knowledge, he found that an eyebrow flash combined with a smile was a common courtship behavior. Secondly, through comments made to women, Eibl-Eibesfeldt was able to elicit the “coy glance”—an expression combining a half-smile and lowered eyes. Looking at a variety of cultures, he found flirting to be prevalent and very much the same the world over. People attracted to one another also made small touching movements, moved closer together than normal, nodded in agreement, used their hands to emphasize points, moistened their lips often, and held the other's gaze.

A few nonverbal courtship behaviors such as smiling, making eye contact, and touching were reported (Kendon & Ferber, 1973) as part of the rituals that

surrounded greetings at social events (e.g., at parties). Although the primary intent of this study was to document greeting rituals, the aforementioned behaviors were seen in both men and women. Kendon (1975) then covertly filmed a couple seated on a park bench in order to record the role of facial expressions during a kissing round. It was the woman's behaviors, particularly her facial expressions, that functioned as a determinant in modulating the behaviors of the man. Similarly, Cary (1976) showed that it was the woman's behavior that was important in initiating conversation between strangers. Both in laboratory settings and in singles' bars or dance clubs, conversation was initiated only after the woman glanced at the man more than once. Cary argued that experienced men looked for the woman who signaled her interest in them and that her glances and smiles, in essence, granted them permission to start a conversation.

Working in the field, Givens (1978) described four cases of courtship behavior observed by him to document, in unacquainted adults, five phases of courtship: attention, recognition, interaction, sexual arousal, and resolution. Attention occurs when one person notices the attractive features of another and exhibits self-touching, coy gaze patterns, and demure facial expressions. During recognition, the recipient responds to invitational behaviors on the part of the sender with availability signals, such as orienting the body toward the first person while returning both gaze and smiles. Interaction involves a variety of behaviors including verbal interaction and accompanying nonverbal behaviors such as sustained eye contact, loud laughter, and emphatic head nodding. As part of sexual arousal, the partners exchange affectionate gestures such as touching, stroking, caressing, and kissing; in resolution, there is continuation of the relationship in copulation or disengagement. In a field study conducted by Lockard and Adams (1980), a large number of established couples of various ages, rather than unacquainted adults, were observed, and their courtship behaviors were catalogued on the basis of age and gender. These couples were covertly observed in recreational settings, such as shopping malls and zoological parks. The nonverbal behaviors described included signals such as kissing, hand linking, embracing, self-grooming, gazing, smiling, laughing, food sharing, touching, and playing. McCormick, Perper, and Jones (1983) also used the observation of public courtship as their method for isolating and describing nonverbal signaling. Although they worked with adult strangers meeting for the first time in social situations (singles' bars) that were popular places for interacting with members of the opposite sex, they listed behaviors such as glancing, touching, smiling, and self-grooming, similar to those observed by Givens, as well as Lockard and Adams.

A number of other researchers (Moore, 1985; Perper, 1985; Walsh & Hewitt, 1985) observed unsuspecting

men and women in dance clubs during the 1980s. In a study (Walsh & Hewitt, 1985) of eye contact and smiling, using confederates, men were found to be much more likely to approach a woman if she first made repeated eye contact, followed by smiling. It appeared that men first needed encouragement before they would approach a woman. Perper's (1985) naturalistic observations in dance clubs documented the phases of early courtship behavior: (a) the approach of one stranger to another; (b) turn, first with the head, followed by the shoulders and torso, and finally the whole body; (c) touch, at first quickly withdrawn, then perhaps lingering longer and with increasing frequency; and (d) the steady development of body synchronization in which the gestures, movements, or postures of one partner are echoed by the other. I focused on the nonverbal courtship behaviors of women as initiators of the courtship process (Moore, 1985). Through the covert observation of over 200 women during more than 100 hr in settings such as bars and recreational centers, I compiled a catalog of 52 female courtship behaviors. In the catalog, I included such behaviors as glancing, primping, smiling, nodding, kissing, leaning forward, and soliciting help. In a later study (see Moore & Butler, 1989), we found that female courtship behavior was so striking that a trained observer could use its frequency to predict, with a high degree of accuracy, the outcome of interactions between men and women. In addition, the frequency of signaling appeared to be the more important factor in eliciting approaches from men, overriding such attributes as physical attractiveness. Therefore, although a high-signaling, beautiful woman would be the most likely to be approached by the man she had been signaling, a high-signaling woman of average attractiveness was much more likely to be approached than her low-signaling, beautiful counterpart.

Through observations, Argyle (1988) identified a number of courtship behaviors including high levels of mutual gaze, touch, movement, smiling, erect and open posture, and proximity. In another field study (McCormick & Jones, 1989), designed to replicate the findings of Perper (1985) and to extend the observation of nonverbal flirtation in bar settings to a rural population, 70 couples were observed. Gender differences in nonverbal courtship behavior were found, with women using behaviors including intimate gazing, smiling, touching, and self-grooming, whereas men used intimate touching. Similarly, in an observational study of 500 couples in a variety of public settings, Willis and Briggs (1992) discovered that men were more likely to initiate touch during courtship and women after marriage had taken place.

Other investigators working in both Europe and the United States (Grammer, 1990; Maxwell, Cook, & Burr, 1985; Simpson, Gangestad, & Biek, 1993) relied more on observations made in controlled settings, such as the

laboratory. Maxwell et al. videotaped 50 pairs of high school students meeting for coffee in a lab that looked like a living room. The participant's liking for the partner was correlated with mutual gaze, the expressiveness of the face, and synchrony in gesture and movement. Grammer brought unacquainted adults to his laboratory in Vienna and filmed their interactions to describe the nonverbal behaviors used by interested and disinterested men and women. Although in this study Grammer focused most on the role of laughter, he also mentioned other signs of interest in women, such as head tossing and hair flipping, and, in men, head tilting and leaning forward. Simpson et al. filmed participants in their laboratory answering a series of questions posed by an attractive opposite-sex "interviewer." In looking at 11 nonverbal behaviors that accompanied the conversation, they reported that interested men smiled, laughed, and displayed flirtatious glances, whereas interested women leaned forward and canted the head.

Returning to field studies, I used a similar approach I employed earlier with women to the observation of teenage girls (Moore, 1995). I discovered that girls used some of the same displays documented in women to attract the attention of boys. In contrast to the courtship behavior of women, however, girls exhibited these behaviors less frequently, and their courtship signaling was dominated more by play behavior, such as physical roughhousing (e.g., punching the target or teasing him by taking something and running away with it). Furthermore, despite the fact that girls' signals were more exaggerated in form, they were less successful in attracting the attention of male peers. Girls also were found to mimic the courtship displays of the dominant girl among their group, which is behavior uncommon in adults.

I compiled a catalog of nonverbal rejection signals used by women either to indicate disinterest in a potential partner or to pace the timing of courtship behavior (Moore, 1998). Interestingly, although there were far fewer rejection behaviors (17) when compared to courtship signals (over 50), many of the rejection behaviors could be conceptualized as the opposite of courting behavior. For example, rather than lean forward with an open posture, the woman not interested in a man oriented her body away from the man and crossed her arms over her chest. Other rejection signals included facial expressions, such as sneering or frowning, and negative grooming behaviors, such as picking at teeth or nails.

A number of studies, although not strictly observational in nature, have addressed the perception of behaviors documented in the field. In this regard, preliminary data (Moore, 1997) indicate that men experiencing problems in dating might be less adept decoders of these nonverbal behaviors than those men who are successful daters. Men who volunteered for a multidimensional dating skills workshop were able to find far fewer nonverbal courtship signals than control

participants when shown a video containing flirtatious, as well as neutral, behaviors. Nonverbal sensitivity and skills training seemed to improve dating outcomes. To compare men experiencing problems in dating to those more socially skilled, I looked at the perception of nonverbal courtship and rejection behaviors by men and women who were in college and regularly dating or in a relationship (Moore, 2002). The evidence indicated that both courtship and rejection signals may be rated differently in terms of potency, depending on the sex of the viewer. Compared to other studies of nonverbal decoding capability, I did not find that men were deficient in delineating courtship and rejection signals exhibited by women. I did find disagreement by gender regarding the strength of the nonverbal message in that men rated courtship signals as sending a stronger communication than did women while seeing rejection behaviors in a weaker light than did women. Similarly, Ostler (2003) found, when he surveyed 420 undergraduate students, that men interpreted most female dating behaviors, including flirting, as more reflective of sexual consent than did women. These results echo those compiled in a variety of studies using a myriad of methodologies (Abbey, 1982; Abbey & Melby, 1986; Goodchilds & Zellman, 1984; Henningsen, Henningsen, & Valde, 2006; Saal, Johnson, & Weber, 1989; Shotland & Craig, 1988) to assess the perception of ambiguous situations by men and women. Shotland and Craig argued that it is not fruitful to label one sex correct and the other wrong in their perceptions, but rather that men and women have different thresholds for decoding the interest, or lack thereof, in a potential partner.

Grammer, Kruck, and Magnusson (1998) more thoroughly investigated the role of nonverbal synchronization, and showed that a woman uses synchronization of nonverbal behavior to test compatibility with a particular man in whom she is interested. Grammer and his colleagues also used a motion energy detection technique to analyze the nonverbal courtship behavior of people from Germany and Japan (see Grammer, Honda, Juette, & Schmitt, 1999). They found that when female interest was high, mutual gaze was initiated and that women were more nonverbally open in posture than were men in initial interactions. Finally, the rate of courtship signaling on the part of women strongly correlated with professed interest in men they met for the second time at Grammer's laboratory (see Grammer, Kruck, & Juette, 2000).

In other ethological studies, observers found that men send courtship signals in the form of glances, space-maximization movements, intrasexual touching, and few closed-body positions in initial interactions (Renninger, Wade, & Grammer, 2004; Tragesser et al., 2002), but a complete catalog, based on a large number of observations of the nonverbal courtship behaviors employed by men, has yet to be compiled. Nevertheless,

Gueguen (2008) found that men responded by approaching a woman and employing other nonverbal courtship behaviors more readily if she smiled.

Self-Report Studies

A number of researchers have asked people directly about courtship signaling, rather than conducting laboratory or field observations. In this regard, Clore and his colleagues (see Clore, Wiggins, & Itkin, 1975b) developed a list of both "cold" and "warm" nonverbal behaviors. They generated descriptions by asking college students on the street about behaviors likely to be made by women in heterosexual social encounters and by observing conversations in progress. Warm behaviors included the following: play with an object, such as a ring or a pencil; smile frequently; use expressive hand gestures; and pucker, touch, and lick lips. In a follow-up study (Clore, Wiggins, & Itkin, 1975a) to test whether attraction is more likely after someone communicates disinterest or dislike, an actress who exhibited warm behaviors following cool behaviors was seen as more attractive to men.

Jesser (1978) completed a survey of over 150 college students enrolled in a course on sex roles, asking them about sexual initiations, responses, and attitudes. Quite interesting is the part of the study aimed at determining which sexual signaling behaviors were used by men and women and by their partners. The most commonly used strategies for signaling sexual interest were nonverbal; over 70% of both men and women in this sample reported that they persuaded a partner to have sex by using the strategies of touching (snuggling, kissing, etc.) and allowing hands to wander. Other nonverbal behaviors reported included eye contact, touching, and teasing or game playing, such as light roughhousing. In another verbal report study (McCormick, 1979), over 100 male and female unmarried college students were asked to write essays explaining how they might try to influence a partner to have sexual intercourse, and what they would do to avoid having sex with an aroused partner. Both men and women reported using indirect strategies to have sex and direct strategies to avoid sex. Indirect strategies included body language and subtle hinting through manipulations of one's appearance or the setting, which are also considered aspects of nonverbal communication.

In another early questionnaire study (Rowland, Crisler, & Cox, 1982), college students were asked about the effects of flirting between faculty and students. Some of the nonverbal behaviors described by students as constituting flirting included both brief and sustained eye contact, as well as brief and sustained physical contact. Approximately one-third of the students reported flirting with instructors or instructors flirting with them. Both women and men believed that female students

were the most probable initiators of flirting, and most respondents believed that flirting could raise the grade of a female student. Although flirting was suspected to change the grades of some students, very few respondents saw flirting as a serious problem on campus. A few years later, Muehlenhard, Koralewski, Andrews, and Burdick (1986) examined both verbal and nonverbal cues used by women to show interest in dating. The nonverbal behaviors reported in this sample were many of the same behaviors listed earlier. Furthermore, the authors recommended that therapists working with women who are uncertain about how to convey interest to a man could use these behaviors and through coaching, modeling, role-playing, and feedback help women become more skilled in attracting potential partners than they were prior to therapy.

In a novel approach using self-report essays, Perper and Weis (1987) discovered that both American and Canadian women, regardless of socio-sexual and religious conservatism, were adept at describing the behaviors they might use to pique a man's interest—that is, women were very knowledgeable about and well aware of the power of nonverbal courtship behaviors. Women described how to go about attracting the attention of men using nonverbal behaviors, such as maintaining eye contact or smiling. More devout women, however, expressed a greater unwillingness to use behaviors that are generally regarded as more sexually overt, such as revealing part of the body or engaging in intimate touching. Thus, some women said they would progress further along the continuum to behaviors that result in sexual intercourse, whereas others stopped far earlier in the sequence. What was true of both devout and nonreligious women was that both were less clear at elucidating those steps just prior to sexual intercourse—that is, both devout and nonreligious women did not describe the nonverbal behaviors that occurred just prior to the initiation of sexual behavior, such as intercourse. Perper and Weis argued that this could very well be because men are expected to orchestrate the later stages of sexual intimacy.

In the same year, Downey and Vitulli (1987) also looked at the role of religious affiliation on the perception and use of flirtatious behavior. They surveyed 93 college students who varied by age, gender, marital status, class level, grade point average (GPA), race or ethnicity, as well as religion. They asked these students a variety of questions about flirtatious behaviors, such as smiling and gazing at another. Some of the queries involved their own participation and reciprocation of such behaviors, whereas other questions had to do with whether they would be flattered if they were the target or jealous if they observed their partner engaging in such behaviors. Although no differences by religious affiliation were found, men were more likely to say they would return flirtatious behaviors and to think they would be successful in using them to seduce a married woman.

Younger respondents, as well as those who were early in their college career and had lower GPAs, were more likely to be flattered by being the target of flirting and be jealous if they saw their partner flirting. Single respondents admitted to using flirting when they were seriously interested in the potential partner.

In addition to expressing romantic or sexual interest, flirting behaviors may be used to strengthen or intensify a dating relationship between individuals. Tolhuizen (1989) investigated just which behaviors were used to increase intimacy in an established relationship, and reportedly found that both men and women commonly employed courtship signals. Byers and Heinlein (1989) found that nonverbal behavior played a significant role in the initiation of sexual behavior, as well as the response by the partner to the initiation. Although verbal initiations were the most common strategy, kissing or other nonverbal behaviors were second in frequency.

Structured interviews were used (Fichten, Taglakis, Judd, Wright, & Amsel, 1992) to ask men and women how they express interest or disinterest in a potential dating partner. No significant gender differences were reported in the use of interest cues. Both men and women were able to describe a wide variety of cues for expressing interest, including verbal, visual, and paralinguistic (vocal) signals. The participants described interest cues more specifically than disinterest cues. Most of the cues related to expressing romantic interest were nonverbal and were similar to behaviors such as smiling, leaning forward, and touching, as reported in earlier studies.

O'Sullivan and Byers (1992), using a self-monitoring procedure, reported on questionnaires completed over a two-week period to investigate the initiation of sexual activity. Although men initiated sexual behavior more frequently than women, women responded more positively to initiations by men. According to the respondents, noncoital sexual play typically took place among dating couples after indirect verbal messages or nonverbal behaviors such as kissing, physical contact, or suggestive movements.

Based on answers to questionnaires (Abrahams, 1994), it appeared that men and women used nonverbal behaviors, including many of those previously described, such as repeated eye contact, the coy smile, forward lean, or touch, as well as sexual assertiveness, overtiness, invitation, playfulness, and unconventionality to judge the flirtatiousness of a communication from someone of the opposite sex. Men were slightly more likely to see invitations communicating stronger intent than were women. The same year, also via the questionnaire approach, Greer and Buss (1994) reported that women were well informed about the use of nonverbal courtship signals in attracting a partner. Some of the most frequently performed acts listed by women to attract a potential partner were laughing, smiling, leaning forward and acting interested in what the man had to say, and touching and hand-holding.

In a research project conducted in the Netherlands, de Weerth and Kalma (1995) found, through responses to questionnaires completed by Dutch students, that both men and women believed that women more appropriately initiated courtship. Nearly 70% of women thought that they would feel comfortable revealing their interest in a man. Both male and female respondents reported eye contact as the most frequently used initiation vehicle. Men reported using somewhat more verbal tactics in initiation, whereas women said they engaged primarily in nonverbal means of indicating attraction.

Men and women participants provided information about romantic relationship initiation in two studies conducted by Clark, Shaver, and Abrahams (1999). Men tended to be more direct and active than women, as evidenced by their responses to questions in the first study and depictions in narratives in the second study. Although men did report initiating touch, women reported using more passive and indirect strategies, such as nonverbal flirting behaviors, than did men.

That flirting behaviors communicate romantic or sexual interest is highlighted by a study conducted by Messman, Canary, and Hause (2000). Students were asked about tactics they used to keep opposite-sex relationships friendly, rather than romantic or sexual. The researchers found, when they questioned undergraduate students, that one strategy commonly used to maintain the stability of an opposite-sex friendship was to refrain from flirting with the friend. Students reported abstaining from behaviors, such as touching and gazing into the eyes of the friend. "Not flirting" was not the only maintenance strategy used by students. They also reported supportive behaviors, such as giving and seeking advice, as well as sharing fun activities.

In one of the few studies (Rose & Zand, 2002) to explore the courtship scripts employed by lesbians, questionnaires were used once again. Both verbal and nonverbal behaviors, including many previously described, were the primary means of communicating sexual attraction as reported by the participants. Indeed, Rose and Zand commented on the similarity between the nature of nonverbal courtship signaling in homosexual and heterosexual women.

Using both surveys and interviews, Ballard, Green, and Granger (2003) addressed the development of nonverbal courtship signaling. They found that mock aggressive behaviors such as tickling, chasing, pretend slapping, and throwing objects, all seen by researchers in observational studies of courtship, increased in frequency from childhood through the early adult years. According to the respondents who averaged 20 years of age, such behaviors were common among both friends and romantic partners. Romantic situations, however, were more likely to result in the following nonverbal behaviors: tickling, butt slaps, pinning, biting, spanking, and pretending to tear clothing. Respondents

viewed these behaviors in a positive light, and saw them having positive outcomes for the relationship, such as increasing fun and emotional attachment.

In another study combining research methods, O'Farrell, Rosenthal, and O'Neal (2003) used both videotaped presentations of flirtatious versus friendly stimulus individuals and questionnaires to assess perceptions and reactions to both verbal and nonverbal flirting by people who were single or partnered. In the video study, single individuals and men regarded non-mates as more attractive and flirtatious. On the other hand, in the questionnaire study, non-partnered respondents and women reported being more likely to flirt in response to another individual flirting with them, as did both men and women who reported low satisfaction in their relationship.

Henningsen (2004) used interviews to assess the motivations most commonly ascribed by men and women to those using flirtatious nonverbal behaviors. Men tended to view flirting as more sexual than did women, who saw flirting as being associated with fun and relational motives.

Grammer, Renninger, and Fischer (2004) looked at the relationship between a woman's clothing choice, sexual motivation, hormone levels, and relationship status in 351 women in Austrian *discotheques*. They did so by digitally analyzing clothing to look at the amount of skin displayed, as well as tightness and sheerness of the attire. Hormone levels were tested via saliva sampling. Participants reported motivation for attending the dance club on a questionnaire. Single women, when compared to partnered women, were more likely to report going to the discos to pursue sexual opportunities or to flirt, whereas the most frequent motivation reported by all women was that of meeting new people. Nevertheless, most women at discos wore what would be considered, both by the investigators and others, to be sexy dress—displaying some skin and being both sheer and tight. This was true, regardless of hormone levels or relationship status, and led the authors to postulate that clothing choice may be a fruitful avenue for the exploration of potential signaling in actual courtship contexts.

Finally, Seal, Smith, Coley, Perry, and Gamez (2008) questioned urban heterosexual couples recruited from public city centers—a group less often studied than college students—about shared sexual experiences. They found that nonverbal behaviors, such as kissing or touching, contributed more to sexual interactions that were experienced as physically arousing and passionate, whereas verbal behaviors contributed more to emotional intimacy.

Summary and Conclusion

In this brief, historical review of observational and self-report studies of nonverbal courtship behaviors, it

is possible to see some trends. Early studies on nonverbal flirting either described certain signals (Eibl-Eibesfeldt, 1971; Schefflen, 1965) or looked at the process of interaction and offered a stage approach (Birdwhistell, 1970; Givens, 1978; Morris, 1971), describing some specific behaviors within stages generally exhibited by men and women. Most of this work was conducted in the field, collecting data through observations of courting couples found in a variety of settings including psychotherapy sessions, the laboratory, and parks. During the 1980s, a number of ethological studies were conducted in dance clubs or singles' bars (Moore, 1985; Perper, 1985; Walsh & Hewitt, 1985), again documenting the stages of courtship signaling or the specific behaviors involved. Because these field studies were often conducted using evolutionary theory as a framework, the specific roles of men and women in the process of courtship were of key importance, as well as the types of nonverbal behaviors commonly used by each.

Shortly after the findings of observational studies were reported, some researchers began to ask people about the nonverbal courtship tactics they used (Clore et al., 1975b; Jesser, 1978) and self-report studies have steadily increased across time. Much of that research has been dominated by social learning theory or script theory. That is not to say that there are not still data being collected from the field, because recent studies have been reported by Renninger et al. (2004) and Gueguen (2008). In collecting information via interviews, questionnaires, or diaries, however, researchers can investigate not only the behaviors associated with the initiation of a potential relationship (Greer & Buss, 1994), but also ask about those implicit in the maintenance of a relationship (Tolhuizen, 1989) or the initiation of more private sexual behavior, such as intercourse (Byers & Heinlein, 1989; Perper & Weis, 1987; Seal et al., 2008).

Now that an overall picture of the role that nonverbal behavior plays in courtship has been fleshed out, more recent work has turned to exploring new territory, such as the nature of nonverbal courtship signaling in children and adolescents (Ballard et al., 2003), in lesbians (Rose & Zand, 2002), or in urban adults (Seal et al., 2008). Later studies have also addressed the perception of nonverbal courtship signaling (Henningesen, 2004; Moore, 2002), as well as the motivations of those involved (Grammer et al., 2004).

After 50 years of study, we have a richer, more nuanced understanding that draws on the work of scholars from multiple disciplines and theoretical frameworks. David Schmitt (2008) warned against casting evolutionary and social-role theories as either—or explanations of relationship initiation. He pointed to researchers (Gangestad, Haselton, & Buss, 2006; Lippa, 2007) who are integrating these perspectives for a broader conceptualization of human sexuality, including

both biology and cultural learning. In looking at courtship, the stability of many of the nonverbal behaviors exhibited across studies might be predicted by evolutionary theory, but the addition of new modes of courtship, employing technological advances such as text-messaging, point to the significance of cultural experience.

There are a number of points I want to make after this brief historical review. First and foremost, that nonverbal behaviors play a central role in human courtship has been unveiled in a myriad of studies presented here. Although the nonverbal behaviors described in this article can be used to “play” at courtship, called quasi-courtship by Schefflen (1965), in the absence of contradictory behaviors, they are typically used to express genuine romantic or sexual interest. Flirtatious behaviors are instrumental not only in conveying initial interest in potential partners, but also in maintaining stability in an established relationship. Flirting has other functions, however, including pacing courtship or injecting fun in the relationship.

Furthermore, scientists such as Perper (1985) and Birdwhistell (1970) proposed that courtship be conceptualized as a process with key stages or phases—anywhere from four to 24. Within those stages are specific behaviors that have been repeatedly documented by many researchers using vastly different methodologies—field observations, laboratory studies, questionnaires, diaries, interviews, and essays. At this point, there is a great deal of agreement about these specific behaviors and some agreement about the order in which they occur—the stages.

According to a number of investigators (Cary, 1976; de Weerth & Kalma, 1995; Kendon, 1975; McCormick & Jones, 1989; Perper & Weis, 1987), the woman often makes the first move. Because her move is subtle—perhaps standing close to her target or looking at him—it is understandable that men have come to be seen as initiators in the courtship process. Timothy Perper (1985) estimated that in about two-thirds of the cases, the woman made the first move; but, in fact, neither gender dominates a successful flirtation during courtship. Each person plays a role in influencing the partner and signaling that the other's influence attempts are welcome (Bredow, Cate, & Huston, 2008). Women, however, do seem to be responsible for the earlier stages of courtship, and men appear to orchestrate the steps just prior to sexual intercourse. As the process unfolds, each member of the pair contributes to the escalation of a successful courtship. At any point along the way, courtship may become derailed because either partner may choose to opt out.

In addition, these courtship strategies are well known to the general population. Many people can readily describe at least some aspects of nonverbal courtship behavior. There is, however, some variability in decoding ability; and, there may be a difference in threshold

for perceiving flirtatiousness rather than friendliness, with men having a lower threshold than women.

Obviously, much needs to be done. Far less is known about the courtship behavior of men than of women. Only recently have studies begun to investigate the courtship signaling of lesbians (Rose & Zand, 2002), and comparable investigation into that of gay men has yet to be published. Much of the past research has involved the investigation of attraction in white, college-aged individuals, although the lack of diversity in terms of age is less troubling, given that young adulthood is the peak developmental phase for finding a mate, than that with regard to race or ethnicity. Still, with large numbers of people divorcing and re-entering the dating market, it seems imperative to know more about the nonverbal courtship behaviors used by both midlife men and women, as well as older adults. In fact, McElhaney (1992) called dating and courtship in the later years a neglected topic of research and has called for more study. Furthermore, only a couple of studies have addressed the development of courtship signaling in childhood and adolescence.

In addition, cross-cultural comparisons are difficult because studies from different cultures are few and far between. Nevertheless, a number of studies from Grammer's laboratory in Vienna have focused not only on the nonverbal courtship patterns of Europeans, but also Asians.

Still, a number of questions about the mechanics of nonverbal courtship signaling remain. For example, Cunningham and Barbee (2008) pointed out that we do not know which behaviors used by women are most effective in stimulating men to approach or the specific actions most likely to be misperceived as flirtatious. They call for research to elucidate how long nonverbal flirting should last before the potential partner reciprocates. Cunningham and Barbee further discussed the fact that we do not know exactly what nonverbal signals are involved in transitioning from one form of touch to the next, such as from hand-holding to hugging.

What is promising is the number of projects underway that will increase our knowledge about the courtship dance so richly articulated by Shakespeare. Some of these projects are extensions of earlier work in the area, whereas others explore new territory. In keeping with the historical overview I presented earlier, scientists from a number of different disciplines are conducting these investigations, using a variety of theoretical orientations to guide research in protocols they have developed employing different methodologies.

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