# PRESENTATIONAL AND AFFECT-MANAGEMENT FUNCTIONS OF NONVERBAL INVOLVEMENT

Miles L. Patterson

ABSTRACT: The purpose of this paper is to offer an elaboration of an earlier classification of functions of nonverbal involvement (Patterson, 1982, 1983). Specifically, two additional functions of nonverbal involvement, the presentational function and the affect-management function are proposed and discussed. The presentational function is manifested in the purposeful involvement patterns with partners that are designed to create an identity or image, either at the individual or dyadic level. The affect-management function is manifested when intense affect produces adjustments in nonverbal involvement that either serves to control the negative affect (fear, shame) or maximizes the positive affect (happiness, joy). The two functions are discussed in terms of the circumstances that contribute to their emergence in social settings.

The study of nonverbal exchange in social interaction has been an important focus of research for over 25 years. With the exception of Argyle and Dean's (1965) equilibrium model, theoretical developments had lagged behind the extensive body of empirical research. In the late 1970's, this circumstance began to change with the emergence of the intimacy-arousal model (Patterson, 1976) and the violations of expectations model (Burgoon, 1978; Burgoon & Jones, 1976). Later, the arousal-discrepancy model (Cappella & Greene, 1982), another expectancy-based model, provided still another theoretical explanation for patterns of interactive behavior. It is not my intention to discuss and evaluate the details of these theories but, rather, to examine the implications of what is common among these models (see Andersen & Andersen, 1984, for such a review).

Although there are important differences among the models identified

A version of this paper was presented at the Third International Conference on Social Psychology and Language, Bristol, England, July, 1987. The completion of this paper was facilitated by support from National Institute of Mental Health grant R01 MH41793–01. I want to thank Eric Knowles for serving as action editor on this manuscript. I also want to thank Judee Burgoon and an anonymous reviewer for their helpful comments and insights on the manuscript. Requests for reprints should be sent to Miles L. Patterson, Department of Psychology, University of Missouri-St. Louis, St. Louis, MO 63121–4499.

here, they all share two basic characteristics. First, they are all reactive in nature. That is, a given actor's behavior is assumed, primarily, to be the product of the partner's preceding behavior. Second, although the various models differ in the specific mediating mechanisms they posit, the affect associated with those mediators is an important determinant of the actor's behavioral responses. These two characteristics also reflect, I think, limitations in these models.

First, much of our social behavior is not simply a mediated response to a partner's behavior, but part of a larger script (Abelson, 1981) or plan that is initiated somewhat independently of the partner's behavior. Along the way, each person influences the other but, at the same time, each person's behavior may also be unfolding according to a general script determined by the actor's motives or goals or by the situational constraints. Second, although affect may be predictive of a substantial proportion of nonverbal behavior, especially spontaneous behavior, individuals can also manage their behavior to create impressions that are quite inconsistent with their affect. The initiation of deception and impression management routines are obvious examples of the controlled independence of behavior and affect. In order to address issues such as these and to provide a more comprehensive perspective, I have advocated a functional approach to understanding nonverbal exchange (Patterson, 1982, 1983).

There is precedent for applying a functional approach to the analysis of nonverbal behavior. Argyle and his colleagues (Argyle, 1972; Argyle & Dean, 1965; Argyle, Lalljee, & Cook, 1968; Kendon, 1967) proposed a classification of functions that related either to managing the immediate situation (e.g., synchronizing speech, providing feedback, and expressing intimacy) or to replacing or supporting the verbal component of interactions. A similar classification was offered by Harrison (1973) who suggested that nonverbal behavior could (a) define and constrain the communication system, (b) regulate the flow of interaction and provide feedback, and (c) communicate content. Ekman and Friesen (1969) also noted the importance of nonverbal behavior in regulating interaction but, in addition, they proposed that nonverbal behavior may repeat, contradict, complement, or accent verbal communication.

Recently, Burgoon (1985) proposed an elaborated classification of functions of nonverbal behavior that grew out of her earlier work (Burgoon, 1980; Burgoon & Saine, 1978). Burgoon stressed the communicative aspects of nonverbal behavior in her classification of functions. As a result, she was more concerned about the content and form of information exchanged nonverbally than its social consequences. For example, four of Burgoon's functions, including: (1) cognitive processing and learning, (2)

expressive communication, (3) relational communication, and (4) mixed messages and deception focus on different content or style characteristics of nonverbal messages. A fifth function, structuring and regulating interaction is a function common to the other classifications (e.g., Argyle, 1972; Ekman & Friesen, 1969; Harrison, 1973). The last two functions, impression formation and management and social influence include behavior patterns that are likely to be managed for achieving interpersonal goals (e.g., a favorable impression or attitude change).

## A Functional Model

Classification schemes can provide a kind of structure for describing patterns of behavior and differentiating among those patterns. Although the focus of the present paper is an extension of my earlier classification, the classification itself is a part of a larger model which attempts to analyze the origin and development of different patterns of behavior. In other words, the functional categories are only a part of a larger system that is designed to explain the dynamics of nonverbal exchange. In general, the functional model represents an attempt to describe and explain patterns of interactive behavior. The categories contained in the classification may be viewed as relatively distinct purposes served by nonverbal involvement and exchange. The model does not attempt to explain all forms of nonverbal behavior (e.g., expressiveness and its relationship to the experience of affect), but only the behavior that is directly relevant for interpersonal involvement.

The first three categories listed in the functional model of nonverbal exchange were, in fact, included in the earlier distinctions proposed by other researchers (e.g., Argyle, 1972; Burgoon, 1980; Ekman & Friesen, 1969; Harrison, 1973). Specifically, those categories include providing information, regulating interaction, and expressing intimacy. In addition, two other functions, social control and the service-task function were introduced (Patterson, 1982, 1983). Social control identifies the managed use of nonverbal involvement that is designed to influence another person, e.g., initiating touch as one requests a favor from a friend. Social control overlaps with Burgoon's (1980, 1985) impression formation and management and social influence categories. The service-task function describes the variable and impersonal use of nonverbal involvement in achieving service and task goals, e.g., the touch from a physician during a medical exam.

## Basic Assumptions

In the original classification, the informational function and interaction regulation were described as molecular functions. That is, these two func-

tions were categories descriptive of brief, isolated behavioral patterns. In contrast, expressing intimacy, social control, and the service-task function were described as molar functions, descriptive of more extended exchanges. More recently, I have had some second thoughts about the utility and reliability of making the molar-molecular distinction. Part of my concern lies with simply defining what is a brief and what is an extended exchange. In addition, there is the issue of being able to define and describe action units and sequences (Newtson, 1973; Newtson & Enquist, 1976; Newtson, Enquist, & Bois, 1977). Because perceivers are not simply passive receivers of information, their own cognitive activity can easily affect the form of perceived action (Newtson, Enquist, & Bois, 1977). For example, the results of one study show that when observers believed that they were watching deliberate behavior they generated about twice as many action units compared to observers who believed that they were watching spontaneous behavior (Atkinson & Allen, 1983). Although different questions and different circumstances may lead a researcher to adopt either a molecular or a molar analysis of behavior sequences, it may be arbitrary to assume that different functions are inherent only in molecular sequences or only in molar sequences.

Another important distinction proposed in the original model remains unchanged, specifically, the contrast between communication and indication. In line with MacKay's (1972) distinction, goal-oriented behavior patterns were judged to be communicative, whereas spontaneous, non-goaloriented behavior patterns were judged to be indicative. According to this approach, communication would obviously include behavior that is consciously managed to influence another person in some manner. The criterion of goal orientation, however, does not require that an actor be consciously aware of the link between the goal and his or her behavior, or for that matter, even be consciously aware of the behavior alone. For example, one may be sensitive to making a good impression on another person without knowing what one is actually doing to bring about that goal. In such an instance, the behavior may be described as communicative because it is goal oriented. Of course, if the actor judges (from the reaction of the partner) that he or she is not successful in making a good impression, the actor will probably become more aware of his or her behavior and its link to the intended goal. In such a case, the actor's behavior would become more deliberate but, in both cases, be described as communicative.

There are, of course, alternative approaches to defining communication. One option suggests that "all behavior is communication" because communication is a system that cannot be segmented into components parts, e.g. intentional vs. nonintentional elements or encoder vs. decoder roles (Birdwhistell, 1959; Scheflen. 1974). This systems approach empha-

sizes the pursuit of the structure and patterning in communication (i.e., social behavior) and tends to ignore motives, goals, or individual differences among interactants. Another approach proposes that a socially shared coding system is at the basis of communication (Burgoon, 1985). According to this latter approach, communication includes "... behaviors that are typically sent with intent, used with regularity among members of a social community, are typically interpreted as intentional, and have consensually recognizable interpretations" (Burgoon, 1985, p. 348). In fact, the socially shared nature of the coding system rather than intent, is stressed because intent is difficult to infer on each occurrence of a particular behavior. Nevertheless, this shifts the emphasis for defining communication more towards the observer or, at least, towards the code linking actor and observer, rather than towards the actor.

Because communication is a hypothetical construct, it is at least difficult, and possibly inappropriate, to determine which definitional perspective is "correct." Rather, my preference for Mackay's (1972) definition is a pragmatic one. That is, MacKay argues that communication must be defined in terms of the source of the message, i.e., the actor or encoder, and not in terms of either an undifferentiated system or the reactions (or inferences) of observers. Consequently, MacKay's approach to communication is both compatible with and useful for the functional perspective, which emphasizes motives and goals as critical determinants of the functions served by an actor's behavior.

The primary purpose of the present paper is to extend the classification of functions of nonverbal involvement to two additional categories, the presentational function and the affect-management function. An attempt will be made to go beyond a mere classification to the analysis of the determinants of these new functions, in the context of the dynamics proposed by the functional model.

## Presentational Function

The first category in this expanded classification may be termed a *presentational* function because the focus of the individual's behavior is to present or enhance an identity or image, either at the individual or relationship level. Presentational behavior patterns, like social control patterns, are often purposeful, designed to influence the reactions of other people. The basic difference between the two functional patterns is in the target of the influence attempt. In social control, the actor's nonverbal behavior might be managed towards a partner to gain compliance, change attitudes, or create

a favorable impression. Such a pattern might include a close approach, touch, smile, and extended gaze.

In the presentational function, a similar pattern of high involvement may be shown toward a partner, but the purpose is not to influence the partner, or even show liking or love toward the partner (characteristic of the intimacy function) but, rather, to create an identity or image for third-party observers. Thus, the audience for a presentational pattern is not the interaction partner but observers of the interaction. In Goffman's (e.g., 1959, 1963, 1967, 1972) terminology, the actor is "performing" for a surrounding "audience." Burgoon's (1980, 1985) impression formation and management function is similar in emphasizing the role of nonverbal behavior in creating impressions in an audience. In the presentational function, however, the interaction partner becomes the focus of that nonverbal behavior, even though the purpose of that behavior is to fashion an image for a group of observers, not for the interaction partner. For example, a person may wish to be seen as a loving spouse, the considerate parent, or the patient and understanding friend. Under such circumstances, close attention to one's partner by holding gaze and maintaining a direct orientation, standing close, touching or holding hands, or being very expressive could all contribute to creating the desired impression in a group of observers.

I have avoided using the term self-presentation to describe this function because some presentations are designed to create a relationship or unit identity. Such performances are often, though not always, cooperative in nature. In this function, mutual involvement (e.g., holding hands, mutual gaze, or shared orientations), is not merely interactive but also serves to identify a relationship. Goffman (1972) used the term "tie-signs" to describe such behaviors when they serve to identify a relationship. In a similar fashion, Scheflen (1974; Scheflen & Ashcraft, 1976) stated that such behavior defines the "withness" of individuals. For example, Scheflen (1974, p. 59) noted that spouses or lovers who attend social gatherings or parties typically check back periodically with each other by talking briefly, sharing a brief gaze, or establishing tactile contact. In fact, Scheflen proposes that such "with" signals are necessary to maintain order in the larger group. Presumably the smooth functioning of the larger group depends on a general understanding of relationships and boundaries in smaller units of the group.

Behavior patterns that reflect the relational identity of social units may or may not be deliberate. Over time and with repeated occurrences, even initially deliberate patterns may cease to be represented in awareness. In addition, it seems likely that the less well known the pair or unit relationship is in a given social setting, the greater the probability that partners will initiate those behaviors that establish their relationship identity. For example, in

one field experiment, the behavior of cross-sex couples, standing in movie lines outside of a theatre, was observed when the male in the pair was approached by an interviewer. Tie-signs initiated by the male, in the form of more direct orientation and increased gaze toward the partner and more frequent talking to the partner, increased when the interviewer was female and when the interview questions became more intimate (Fine, Stitt, & Finch, 1984). The authors interpreted the males' adjustments as reactions to potential threats to the structure of the relationship. In this study, the researchers focused on the tie-signs of only one member of a pair, but these patterns are almost always cooperative in some sense. On the other hand, one member of a pair may be more invested in establishing the relationship identity, e.g., a jealous spouse. In such a case the more motivated member of the pair may be more likely to initiate the relational signals.

Presentational patterns may also be initiated in groups in which the pair identity is already known. In such a case, holding hands or standing close may serve to reflect the quality of the relationship more than its identity. That is, among friends, acquaintances, or even family members, partners may cooperate in fashioning an image of intimacy or closeness in a relationship, even if it does not exist.

Although it may be less common, the deliberate avoidance of the high involvement that implies a relational identity is also an example of the presentational function. That is, one member of a pair may purposefully decrease involvement to signal that he/she is not attached when, in fact, that is not the case. Alternatively, one person may deliberately avoid his/her partner to show independence when the audience is judged to value such behavior. A stereotypic example might be the insensitive husband who ignores his wife so that he can be "one of the boys." Such a behavioral pattern is not the result of great interest in his friends' conversation but, rather, a presentation designed to show them his independence from his wife's influence.

In summary, when involvement levels are exaggerated toward a partner for the sake of creating an identity or image to a surrounding audience, the resulting pattern may be described as a presentational one. This applies whether the involvement is deliberately increased or decreased.

# Affect Management

The second category in this expanded classification might be termed affect management because adjustments in interactive behavior will, in addition to serving other functions, regulate the experience of affect, especially, strong affect. At the same time, affect management patterns also help to con-

trol the interpersonal consequences of emotional expression. In most cases, affect management patterns are probably spontaneous and temporally or situationally limited. Buss (1980) discussed a set of negative affective reactions such as embarrassment, shame, and social anxiety that are characterized by high levels of public self-consciousness. He suggested that, although there are important distinctions among these states, temporary avoidance of others in the form of decreased gaze is common. Stronger negative affect can also lead to turning away and increasing distance from others. The results of two studies on nonverbal reactions to embarrassment are consistent with Buss's assumptions. Specifically, when embarrassment was precipitated in interactions, the embarrassed subjects decreased gaze toward the partner, increased movement and gestural activity, and increased smiling (Edelmann & Hampson, 1979, 1981).

The smiling that can occur with embarrassment is not, of course, the same sort of friendly or happy smiling that is typically present in positive interactions. Instead, the embarrassed individual has a "silly" smile, downcast eyes (possibly even covered eyes and face) and is often blushing (Buss, 1980, p. 130). Such patterns may help to decrease the level of negative affect and/or limit one's vulnerability to the critical evaluation of observers.

Other types of negative affect induce a need for contact with others. Affective reactions such as fear often bring individuals together to support or comfort one another (Schachter, 1959). In a similar fashion, grieving individuals may be consoled by hugs or embraces from others. There are, however, likely to be important differences in the ways that fear and grief lead to affect management. Specifically, it might be predicted that the fearful person would be more likely to initiate actively the contact with others. In contrast, people who are grieving may not be so inclined to seek out others for emotional support. If that is the case, the grieving individual might be more dependent on other people taking the initiative in providing comfort.

At the other end of the emotional spectrum, highly positive affect may be celebrated by hugs, kisses, and shared smiling and laughter. "High-fives," fanny slapping, and embraces are common among our most masculline sports heroes after scores or other important plays. One study examined the touching behavior of male intramural flag-football players at the end of their games. Winners initiated touch with losers approximately three times as often as did losers with winners (Heckel, Allen, & Blackmon, 1986). Most common was touch among winning team members, approximately 42% more frequent than winners' touches toward losers. Unfortunately, the logistics of monitoring touch did not permit observation of touching only among losers, but the authors suggested that touching among losers was probably limited.

Affect management, as described here, is distinct from the role of affect as a direct mediator of behavioral changes in nonverbal involvement. The role of affect as a mediator of nonverbal involvement can be seen in the developing reaction to a partner's initial change in nonverbal involvement. For example, the partner's behavior (close approach or touch) leads to an affective response in the actor that, in turn, precipitates a behavioral adjustment by the actor (Cappella & Greene, 1982; Patterson, 1976). In terms of the functional model, affect could also serve a mediating role in the intimacy function. That is, increased intimacy (i.e. positive affect in the form of liking or love), precipitates increased involvement, whereas decreased intimacy (i.e., negative affect in the form of disliking) precipitates decreased involvement or avoidance. With affect management, the presence of strong affect, from sources other than a partner's preceding behavior, stimulates nonverbal adjustments that serve to maximize positive affect and minimize or control negative affect. Affect management and the intimacy function will complement one another to the extent that the loved ones are more likely to be the focus of affect management patterns (e.g., in celebrating good fortune or in sharing grief).

It should also be mentioned that involvement with others will also be sought when affective reactions are ambiguous (Festinger, 1954; Wrightsman, 1960). Such involvement will probably be manifested nonverbally in the form of closer approaches and increased gaze. In this case, increased involvement would be best described as informational in nature and not as affect management. That is, in order to gain information via social comparison, closer distances and increased gaze are necessary. Attention to another's facial expression may be especially informative and even lead to facial mimicry. This process may be an important component in defining one's own affective experience (Leventhal, 1974). The role of facial expression in the experience of affect is, however, a complicated one and there is a considerable difference of opinion on the causal sequences (see Buck, 1984, Chapter 2 for a review).

Finally, it is assumed that in most instances the affect management function is initially spontaneous or indicative. Of course, if the actor has an opportunity to reflect on his/her situation or if others call attention to the behavioral consequences of the affect, further nonverbal adjustments may become deliberate. In addition, some displays, such as the congratulatory or celebration exchanges during, or after, sporting contests may be relatively deliberate. In a similar fashion, the initiation of comforting behavior toward the grieving individual may be viewed as a responsibility which is deliberately undertaken. Affect management in the form of gaze avoidance may also be deliberate when one is trying to limit the display of strong affect one

feels toward another person. Such a tactic may be employed in combination with a deliberate attempt to mask the experienced affect with the facial display of another affect (Ekman & Friesen, 1984, pp. 142–143).

## **Emergence of Functional Patterns**

The functional model proposes that patterns of interactive behavior have their antecedents in personal and group characteristics, past experiences, and relational-situational constraints (Patterson, 1982, 1983). These antecedent factors, in turn, set the stage for the interaction by (a) determining behavioral predispositions for differential involvement, (b) precipitating arousal change, and (c) developing cognitive-affective expectancies. The combined influence of these three mediators shapes the individual's perceived function of the interaction and constrains the range of preferred involvement with the partner. Interactions tend to be stable or predictable when the preferred levels of involvement of the interactants are similar and when the perceived functions are complementary. When a discrepancy is noted either in the preferred level of involvement or in the apparent complementarity of functions, then the interaction may be described as unstable. Arousal change and additional cognitive-affective assessment may then result, leading to a change in the involvement level and/or to an altered perception of the function. These changes will tend to promote stability in the interaction or, failing that, an earlier termination of the interaction.

In terms of the sequential processes described in the functional model, what circumstances are likely to facilitate the emergence of the presentational and affect-management patterns? Some speculations can be offered here on that question. First, with respect to the presentational function. when audience members important to the actor value specific images or identities, presentational patterns supporting those images or identities by the actor(s) are more likely. For example, if the rising junior executive judges that his boss is very concerned about the stability of her employees' family lives, a specific presentational routine is likely to develop when the boss comes for dinner. In such a case, our junior executive will be more involved nonverbally (e.g. increased gaze, touch, smiling) with his wife than he would be in the boss's absence. Of course, in a different setting with an audience having the opposite values, a contrasting pattern is likely to be initiated. In addition, characteristics such as public self-consciousness, social anxiety, and high self-monitoring will increase evaluation apprehension and the resulting pressure to enact an appropriate presentational pattern. High levels of evaluation apprehension or social anxiety can, however, have

a debilitating effect on the performance of an effective routine (Leary & Atherton, 1986).

Finally, to the extent that presentational patterns are deliberate, goal-oriented routines, their stability probably depends on the reactions of the critical audience members. Specifically, if those patterns are accepted and reinforced by the audience, the patterns are likely to continue. If not, the negative feedback should lead to adjustments in the routine, as long as the negative feedback does not have a substantial effect on the subject's self efficacy (Leary & Atherton, 1986).

The initiation of affect management patterns is also highly dependent on the nature of the social situation. For example, embarrassment and shame reactions are likely to be experienced more strongly and decrease involvement more with others when the partners are more important to the actor, e.g., in more intimate relationships or in a relationship with a higher status person. Similarly, the increased involvement triggered by fear or grief reactions is likely to be selectively focused toward family members and loved ones. Individual differences can also contribute to the intensity of affect and the resulting patterns of nonverbal involvement. For example, those who are high in public self-consciousness, socially anxious, and high in self-esteem are likely to experience shame and embarassment more intensely and show greater avoidance of others (Buss, 1980). In terms of fear and grief, children and females are more likely to be the recipients of comforting behavior by others. On the positive side of affect management, the experience of happiness, joy, or surprise is likely to be intensified by greater involvement with surrounding friends and loved ones. In all of the instances of increased involvement, for both the negative and positive affect, it should be noted that tactile involvement seems to play a primary role. In these instances, increased gaze and other behavioral forms of involvement do not usually serve as adequate substitutes for hugs, embraces, or simply holding hands. These situations seem to call for the supporting or celebrating touch from others

#### Conclusions

The expanded classification of functions now includes the following categories:

- 1. informational function;
- 2. interaction regulation;
- 3. intimacy;
- 4. social control:

- 5. presentational function;
- 6. affect management; and
- 7. the service-task function.

The classification proposed in this paper is designed to describe a range of relatively distinct purposes served by nonverbal involvement. In the context of the functional model, these different functions become a part of the dynamic sequential process designed to explain social behavior. More specifically, the functional model identifies antecedent factors and mediating processes that direct the development of different functional patterns in social interaction. I think that this approach provides a useful way of organizing our knowledge about social behavior, but its utility must also be evaluated in terms of its ability to generate research on nonverbal behavior. Over time, other researchers will be making that judgment.

## References

- Abelson, R. P. (1981). Psychological status of the script concept. *American Psychologist*, 36, 715–729.
- Andersen, P. A. & Andersen, J. F. (1984). The exchange of nonverbal intimacy: A critical review of dyadic models. *Journal of Nonverbal Behavior*, 8, 327–349.
- Argyle, M. (1972). Non-verbal communication in human social interaction. In R. A. Hinde (Ed.), *Non-verbal communication* (pp. 243–269). Cambridge: Cambridge University Press.
- Argyle, M. & Dean, J. (1965). Eye-contact, distance and affiliation. Sociometry, 28, 289–304.
  Argyle, M. & Kendon, A. (1967). The experimental analysis of social performance. In L. Berkowitz (Ed.), Advances in experimental social psychology (pp. 55–98). New York: Academic Press.
- Argyle, M., Lalljee, M., & Cook, M. (1968). The effects of visability on interaction in a dyad. *Human Relations*, 21, 3–17.
- Atkinson, M. L. & Allen, V. L. (1983). Perceived structure of nonverbal behavior. *Journal of Personality and Social Psychology*, 45, 458–463.
- Birdwhistell, R. L. (1970). Kinesics and context: Essays on body motion communication. Philadelphia: University of Pennsylvania Press.
- Buck, R. (1984). The communication of emotions. New York: Guilford Press.
- Burgoon, J. K. (1978). A communication model of personal space violations: Explication and an initial test. *Human Communication Research*, 4, 129–142.
- Burgoon, J. K. (1980). Nonverbal communication research in the 1970's. *Communication Yearbook*, 4, 179–197.
- Burgoon, J. K. (1985). Nonverbal signals. In M. L. Knapp & G. R. Miller (Eds.), Handbook of interpersonal communication (pp. 344–390). Beverly Hills: Sage.
- Burgoon, J. K. & Jones, S. B. (1976). Toward a theory of personal space expectations and their violations. *Human Communication Research*, 2, 131–146.
- Burgoon, J. K. & Saine, T. (1978). The unspoken dialogue: An introduction to nonverbal communication. Boston: Houghton-Mifflin.
- Buss, A. H. (1980). Self-consciousness and social anxiety. San Francisco, CA: W. H. Freeman & Co.

- Cappella, J. N. & Greene, J. O. (1982). A discrepancy-arousal explanation of mutual influence in expressive behavior for adult and infant-adult interaction. Communication Monographs, 49, 89–114.
- Edelmann, R. J. & Hampson, S. E. (1979). Changes in nonverbal behavior during embarrassment. *British Journal of Social and Clinical Psychology*, 18, 385–390.
- Edelmann, R. J. & Hampson, S. E. (1981). Embarrassment in dyadic interaction. *Social Behavior and Personality*, 9, 171–177.
- Ekman, P. & Friesen, W. V. (1969). The repertoire of nonverbal behavior: Categories, origins, usage and codings. *Semiotica*, 1, 49–97.
- Ekman, P. & Friesen, W. V. (1974). Detecting deception from the body or face. *Journal of Personality and Social Psychology*, 29, 288–298.
- Ekman, P. & Friesen, W. V. (1984). *Unmasking the face* (revised edition). Palo Alto, CA: Consulting Psychologists Press.
- Festinger, L. A. (1954). A theory of social comparison processes. *Human Relations*, 7, 117–140.
- Fine, G. A., Stitt, J. L., & Finch, M. (1984). Couple tie-signs and interpersonal threat: A field experiment. *Social Psychology Quarterly*, 47, 282–286.
- Goffman, E. (1959). Presentation of self in everyday life. New York: Anchor Books.
- Goffman, E. (1963). Behavior in public places. New York: The Free Press.
- Goffman, E. (1967). Interaction ritual. Garden City, NY: Anchor.
- Goffman, E. (1972). Relations in public. New York: Harper Colophon.
- Harrison, R. P. (1973). Nonverbal communication. In I. S. Pool, W. Schramm, N. Maccoby, F. Fry, E. Parker, & J. L. Fern (Eds.), *Handbook of communication* (pp. 93–115). Chicago, IL: Rand McNally.
- Heckel, R. V., Allen, S. S., & Blackmon, D. C. (1986). Tactile communication of winners in flag football. *Perceptual and Motor Skills*, 63, 553–554.
- Kendon, A. (1967). Some functions of gaze-direction in social interaction. *Acta Psychologica*, 26, 22–63.
- Leary, M. R. & Atherton, S. C. (1986). Self-efficacy, social anxiety, and inhibition in interpersonal encounters. *Journal of Social and Clinical Psychology*, 4, 256–267.
- Leventhal, H. (1974). Emotions: A basic problem for social psychology. In C. Nemeth (Ed.), Social psychology: Classic and contemporary integrations (pp. 1–51). Chicago: Rand McNally.
- MacKay, D. M. (1972). Formal analysis of communicative processes. In R. A. Hinde (Ed.), *Non-verbal communication* (pp. 3–25). Cambridge: Cambridge University Press.
- Newtson, D. (1973). Attribution and the unit of perception in ongoing behavior. *Journal of Personality and Social Psychology*, 28, 28–38.
- Newtson, D. & Enquist, G. (1976). The perceptual organization of ongoing behavior. *Journal of Experimental Social Psychology*, 12, 436–450.
- Newtson, D., Enquist, G., & Bois, J. (1977). The objective basis of behavior units. *Journal of Personality and Social Psychology*, 35, 847–862.
- Patterson, M. L. (1976). An arousal model of interpersonal intimacy. *Psychological Review*, 83, 235–245.
- Patterson, M. L. (1982). A sequential functional model of nonverbal exchange. *Psychological Review*, 89, 231–249.
- Patterson, M. L. (1983). Nonverbal behavior: A functional perspective. New York: Springer-Verlag.
- Schachter, S. (1959). The psychology of affiliation. Stanford, CA: Stanford University Press.
- Schflen, A. E. (1974). *How behavior means*. Garden City, NJ: Anchor. Scheflen, A. E. & Ashcraft, N. (1976). Human territories: How we behave in space-time. Englewood Cliffs, NJ: Prentice-Hall.
- Wrightsman, L. S. (1960). Effects of waiting with others on changes in level of felt anxiety. Journal of Abnormal and Social Psychology, 61, 216–222.
- Zajonc, R. B. (1965). Social facilitation. Science, 149, 269-274.