

Interpersonal Communication: Theoretical Perspectives, Future Prospects

By Charles R. Berger

During the past 4 decades, the research foci encompassed by the interpersonal communication domain have undergone considerable change. In the 1960s, research conducted under the interpersonal communication rubric focused on persuasion and social influence, with some evidence of interest in small-group processes. Fueled by learning (Hovland, Janis, & Kelley, 1953), dissonance (Festinger, 1957, 1964), balance (Heider, 1958), social judgment (Sherif & Hovland, 1961), and reactance (Brehm, 1966) theories and such proclamations as this: “We communicate to influence—to affect with intent” (Berlo, 1960, p. 12), experimental studies of attitude change dominated the interpersonal communication landscape of that era. By the late 1960s and early 1970s, these interests began to be eclipsed somewhat by concerns for the role played by social interaction in promoting interpersonal attraction and the development of personal relationships (Berger, 1977). Although a detailed analysis of this sea change cannot be presented here, the rise of the encounter group movement of the late 1960s, with its emphasis on authentic self-presentation and self-disclosure in social intercourse and its distinct aversion to interpersonal manipulation and deception (Cozby, 1973; Giffin & Patton, 1971; Jourard, 1964, 1971; Parks, 1982), coupled with increased interest in such areas as interpersonal attraction (Byrne, 1971; Newcomb, 1961), nonverbal communication (Knapp, 1972; Mehrabian, 1971), and relationship development (Altman & Taylor, 1973; Duck, 1973; Kelley, 1979; Kelley & Thibaut, 1978; Thibaut & Kelley, 1959) all probably served to attenuate interests in persuasion and social influence processes.

By the middle 1970s, the study of relationship development processes began to be reflected in the work of communication researchers (Berger & Calabrese, 1975; Miller & Steinberg, 1975). Although not directly focused on relationship development, the rise of constructivism during this period, with its concern for the links between the complexity of social construal (Crockett, 1965; Kelly, 1955) and effectiveness in social interaction (Clark & Delia, 1977; Delia, O’Keefe, & O’Keefe, 1982), as well as work concerned with social exchange and communication (Rolloff,

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1981, 1987; Roloff & Campion, 1985) served to reinforce this emerging trend. Within the broader context of this relationship development zeitgeist, initial studies of compliance gaining (Miller, Boster, Roloff, & Seibold, 1977) and subsequent work in this area (Cody & McLaughlin, 1980; Cody, Canary, & Smith, 1994; Cody, Woelfel, & Jordan, 1983; McLaughlin, Cody, & Robey, 1980) can be viewed as attempts to reintroduce the study of social influence processes in interpersonal communication contexts. However, for a variety of reasons, including several anticipated by Miller (1987), this effort foundered (Dillard, Anderson, & Knobloch, 2002; Kellermann & Cole, 1994), even after generating over 100 studies (Boster, 1995); nevertheless, three editions of the *Handbook of Interpersonal Communication* spanning 2 decades have featured chapters concerned with social influence processes.

Research focused on relational control processes also began to appear during the 1970s (Mark, 1971; Millar & Rogers, 1976, 1987; Rogers & Farace, 1975; Rogers & Millar, 1988). Based on the work of Watzlawick, Beavin, and Jackson (1967), exponents of this perspective devised interaction coding schemes designed to identify patterns of dominance and submissiveness manifested in pairs of message exchanges between social actors. During the latter part of this decade and the early part of the 1980s, the coordinated management of meaning, a rules-based theory, also appeared on the scene (Pearce & Cronen, 1980). In addition, the then-extant cognitive approaches to interpersonal communication, as represented by the work on constructivism and uncertainty reduction, were reinforced by a general rationale for cognitive approaches to the study of communication (Hewes & Planalp, 1987; Planalp & Hewes, 1982; Roloff & Berger, 1982) and the initial presentation of action assembly theory (Greene, 1984). This cognitive turn was paralleled by increased focus on patterns of behavioral adaptation displayed by individuals during social interactions. Early attempts to explain patterns of reciprocity and compensation during social interactions included speech accommodation theory (Giles & Powesland, 1975), proxemic violations theory (Burgoon, 1978), arousal labeling theory (Patterson, 1983), and discrepancy arousal theory (Cappella & Greene, 1982, 1984). As will become apparent, these early theoretical forays helped shape the interpersonal communication research agenda during the past 2 decades.

This review will not undertake the impossible task of presenting an exhaustive compendium of research published under the aegis of interpersonal communication; numerous chapters published in various handbooks have done an admirable job of this task (Greene & Burleson, 2003; Knapp & Daly, 2002; Robinson & Giles, 2001). Rather, this presentation will provide an overview of the state of theorizing about interpersonal communication phenomena. Although communication researchers have frequently chosen to guide their inquiries by employing theories generated by those who till the research soil in lands of cognate disciplines (Berger, 1991, 1992), this review will be restricted to theories that have been devised by those who identify themselves primarily as communication researchers. Moreover, the emphasis will be on theories that seek to explain some aspect of communicative conduct. Although social interaction is clearly prerequisite for establishing and maintaining personal relationships, some theories of relationship develop-

ment do not necessarily offer explanations for social interaction per se. Rather, such theories seek to explain the residues of social interactions by recourse to retrospective, memory-based judgments and accounts that are presumed to have resulted from face-to-face interaction. That is, events that have transpired during social interactions are assumed to drive current characterizations and evaluations of relationships, but the events themselves are neither directly observed nor explained.

The present review's exclusive focus on theory is warranted by at least two propositions. First, merely observing that phenomena behave in a consistent fashion does not ipso facto explain why they do so; theories serve the vital function of providing explanations for these observed regularities (Greenwood, 1991; Pavitt, 1999, 2000, 2001). For purposes of the present review, a theory consists of a set of interrelated propositions that stipulate relationships among theoretical constructs and an account of a mechanism or mechanisms that explain the relationships stipulated in the propositions. Not all of the theories reviewed here have been presented in a formal propositional format and some have not stipulated explanatory mechanisms. Nevertheless, for the sake of representing the domain of theoretical thinking about interpersonal communication, these perspectives have been included in this review. Second, a research edifice erected exclusively on the shifting sands of empirical data is not likely to endure. In this regard, Gigerenzer (2000) has aptly observed, "Data without theory are like babies without parents: Their life expectancy is low" (p. 296). Whereas individual theories may ultimately be shown to provide only partial or even erroneous explanations, the process of testing them serves the important functions of organizing and focusing research efforts and promoting dialogue and debate among researchers. The critical role played by theory in such processes is illustrated by the comments of a National Aeronautics and Space Administration (NASA) project manager who reported that during one working day in January 2004, NASA engineers devised and tested more than six different theories in an effort to explain Mars rover Spirit's data transmission problems. Thus, it is better to have theorized and lost than never to have theorized at all.

It is possible to organize theoretical activity within the interpersonal communication domain into at least six distinct areas. The first of these concerns the verbal and nonverbal adjustments and adaptations that individuals make during face-to-face interaction. Theories falling into the second area focus on message production processes. The third area includes theories that feature uncertainty as an organizing construct. The fourth area subsumes theories generated to explain various aspects of deceptive communication. The fifth category encompasses dialectical theories. Finally, the growth of new communication technologies that defy traditional distinctions between interpersonal and mass communication has promoted considerable interest in comparisons between face-to-face and computer-mediated social interaction. Whereas the individual theories included in these six categories cannot be explicated in detail, adumbrating the range of phenomena they are purported to explain can expose potential lacunae in the interpersonal communication domain's theoretical landscape. The hope is that these explanatory gaps will be filled by future interpersonal communication theorists.

Interpersonal Adaptation Theories

Interest in explaining why individuals engaged in social interaction alter their verbal and nonverbal behaviors in response to each other's actions emanated from a number of early research traditions outside the communication field. Gouldner (1960) argued that social action is governed by the norm of reciprocity that obligates individuals engaged in social exchange to help and not harm those who help them. A specific instantiation of this general principle is reflected in early work on self-disclosure (Cozby, 1973; Jourard, 1964, 1971). In explicating what he labeled the dyadic effect, Jourard (1971) asserted that increasingly intimate self-disclosure by one individual tends to promote increasingly intimate self-disclosure by his or her cointeractants. Contemporaneous studies of therapist-client interactions, not directly related to self-disclosure research, revealed that as therapists purposely varied such speech parameters as utterance length and response latencies, their clients tended to mimic these changes in their own speech (Matarazzo, Wiens, & Saslow, 1965).

Although these early clinical studies emphasized reciprocal patterns of exchange in self-disclosure and nonverbal behaviors, other researchers of that era suggested that sometimes individuals show compensation in response to each other's behaviors. Specifically, Argyle and Dean (1965) proposed that as people converse at increasingly inappropriate close conversational distances, those experiencing the violation should display compensatory behaviors such as eye gaze avoidance to their conversational partners. Their equilibrium theory or affiliative conflict theory explained such compensatory behavior by suggesting that individuals seek to balance affiliative tendencies with needs for autonomy. When this equilibrium is disrupted, people experience anxiety and engage in behaviors calculated to restore balance. In a somewhat related vein, proponents of speech accommodation theory have argued that individuals tend to alter such attributes of speech as dialect and accent in the direction of their cointerlocutors' speech style, or converge when they desire solidarity with their conversational partners and emphasize differences, or diverge when they wish to assert a unique individual or group identity (Giles & Powesland, 1975). The scope of this theory was later broadened to include speech parameters other than dialect and accent and renamed communication accommodation theory (Giles, Coupland, & Coupland, 1991; Giles, Mulac, Bradac, & Johnson, 1987; Shepard, Giles, & Le Poire, 2001).

Against the background of these traditions, communication researchers sought to explicate the conditions under which reciprocity and compensation are likely to occur during social interaction. Although varying with respect to their explanations for patterns of reciprocity and compensation, proximic violations theory (Burgoon, 1978), which later morphed into expectancy violations theory (Burgoon, 1993), arousal labeling theory (Patterson, 1983), discrepancy arousal theory (Cappella & Greene (1982, 1984), and cognitive-valence theory (Andersen, 1989; Andersen & Guerrero, 1998a), all accorded arousal a central role in determining which interaction pattern would occur. Tests of these various theories yielded only partial support for any one of them (Burgoon, Stern, & Dillman, 1995); consequently, Interaction Adaptation Theory was formulated in an attempt to over-

come some of the limitations of these previous theories (Burgoon, Stern, & Dillman, 1995; Burgoon & White, 1997).

Interaction adaptation theory is premised on several principles, including biological pressures to adapt social interaction patterns so that individuals “mesh” and show interaction synchrony, social pressures toward behavioral reciprocity and matching, and both reciprocity and compensation at the level of communication. Although there are strong predispositions to adapt, such factors as the consistency of one’s communication style may limit adaptation during social interaction. The theory postulates that cyclical variations in approach and avoidance drives also determine whether interaction participants will show patterns of reciprocity or compensation. That functional complexes of behaviors as opposed to particular behaviors studied in isolation should serve to yield more accurate predictions concerning reciprocity and compensation is a fundamental theoretical principle (Burgoon, Stern, & Dillman, 1995; Burgoon & White, 1997).

The theory identifies three sets of factors that are important determinants of individuals’ interaction expectations: (a) Required (R) factors are related to individuals’ basic needs and drives; (b) expectations (E) reflect individual cognitive representations of social norms, social prescriptions, individuated knowledge about the other’s behavior as well as functions or goals germane to the current situation; and (c) desired (D) level of the behaviors includes individual’s personal goals and preferences. The RED factors combine to determine a summary interaction position (IP) construct. The IP represents an overall assessment of what the individual needs, anticipates, and prefers as the interaction pattern in the particular situation. The RED factors may vary with respect to their weight, thus altering the individual’s preferred interaction pattern. When individuals interact, the theory postulates that one’s IP is compared with the actual (A) behavior of the partner. If IP and A match or are within a “tolerable range,” reciprocity or matching is likely to occur; however, large IP-A discrepancies potentiate behavioral change, cognitive change, or both, the magnitude of which varies directly with the magnitude of the discrepancy. When individuals receive more of the kind of behavior they want, they are likely to move in the direction of matching their partner’s behavior; however, when individuals receive less than the expectations embodied in the IP, they are more likely to compensate. As Burgoon and White (1997) noted, because of interaction adaptation theory’s ambitious scope, determining the degree to which it provides plausible explanations for reciprocity and compensation during social interaction remains to be seen.

Much of the work done in connection with interaction adaptation theories, whether focused on specific behaviors or presumed functional complexes of behaviors, has involved the analysis of nonverbal behaviors. This narrow focus is potentially problematic. It is easy to imagine interactions in which cointerlocutors show considerable matching, reciprocity, and synchrony nonverbally but, at the same time, demonstrate nonreciprocity or compensation verbally, as they might in repetitive conflict or bargaining episodes, or in situations in which individuals stubbornly refuse to divulge certain information, despite others’ insistence that they do so. In such instances, the values of many of the cointerlocutors’ nonverbal parameters (speech rate, vocal intensity, gesticulatory activity, eye gaze, body

lean, physical proximity, etc.) may match or be reciprocated, even as they engage in a titanic, complementary verbal struggle. Thus, reciprocity or compensation displayed in nonverbal channels may not necessarily be predictive of verbal exchange patterns. In addition, as ubiquitous as reciprocity appears to be during social encounters, individuals manifest interaction patterns that cannot be classified as either reciprocal or complementary (Burgoon, Stern, & Dillman, 1995). Even though such patterns defy simple classification within this dichotomous system, they may serve important social interaction functions.

Message Production Theories

Early research conducted under the aegis of constructivism sought to demonstrate relationships between the degree to which individuals demonstrate cognitive complexity with respect to people (Crockett, 1965; Kelly, 1955) and the degree to which they are able to generate messages that might be effective in attaining specific goals such as persuasion (Clark & Delia, 1977; Delia, Kline, & Burleson, 1979). The theory argued that individuals whose constructs for construing other people are more differentiated, integrated, and abstract are better able to generate listener-adapted messages and are thus better able to achieve their interaction goals than are their less cognitively complex counterparts. In connection with evaluating this claim, constructivist researchers devised hierarchical coding schemes designed to assess the degree to which messages take into account the goals of those for whom they are intended.

This early cognitive complexity work spawned several lines of research that appeared during the 1980s and into the 1990s. Burleson's (1982, 1984) research on comforting strategies, studies of person-centered communication (Applegate, 1990; Waldron & Applegate, 1994), and research on message design logics (O'Keefe, 1988) all employed cognitive complexity as a construct to explain variations in the sophistication and effectiveness of individuals' messages. Although Burleson's continuing work on emotionally supportive communication has relied less on cognitive complexity as an explanatory construct, it emphasizes the crucial role that person-centeredness plays in the effectiveness of messages designed to provide emotional support (Burleson, in press). This extensive line of research has identified attributes that differentiate between more and less effective emotionally supportive messages; however, theories that explain the linkages between message features and outcomes need to be developed (Burleson, 2003, in press; Burleson & MacGeorge, 2002).

As the lines of research animated by constructivism developed during the 1980s, Greene (1984) proposed his initial version of action assembly theory. This theory has as its goal the specification of the mechanisms by which individuals produce verbal and nonverbal behavioral outputs during their interactions with others. The theory assumes that perceptual, interpretative, and motivational processes give rise to situational and goal representations, but these representations fall outside of the theory's purview. The theory's fundamental structural unit is the procedural record, a long-term memory associative network structure consisting of nodes

that represent features of actions, outcomes, and situations; these nodes are linked by associative pathways. The strength of these associative links is assumed to be a function of both the frequency and recency with which the links have been instantiated. The theory postulates that these procedural records are activated and assembled to form a coherent output representation of the to-be-taken action.

Early incarnations of this theory assumed that action assembly primarily proceeds in top-down fashion in which more abstract levels constrain successively more concrete encoding levels; however, later versions of the theory have allowed for bottom-up processing (Greene, 1997, 2000). Much of the research spawned by the theory has assessed communicative performance by examining such parameters as speech rate, frequency, and duration of pauses and speech onset latency as a way of making inferences about the operation of postulated structures and processes and the speed with which output representations are assembled. The theory has also motivated research concerning the effects of practice on these output parameters. Consequently, the theory offers a unique perspective on social interaction skill (Greene, 2003; Greene & Geddes, 1993; Wilson & Sabee, 2003). Even though the theory generally brackets questions concerning interactions between perceptual inputs and behavioral outputs (Greene, 1997), its scope is perhaps the most ambitious of the message production theories considered here.

Other message production theories have focused on the role various knowledge structures play in guiding the production of discourse and action (Berger, 2002a). Based on Schank's (1982) theory of dynamic memory, Kellermann (1995) argued that a conversational memory organization packet (MOP) organized scenes in the stream of discourse. Scenes are generalized cognitive representations of goal-directed action sequences that share features across contexts, for example, greetings and goodbyes. Contextual variations in scenes are taken into account by specific scripts that are attached to scenes. Thus, the script for saying goodbye at an airport might differ in some respects from the script for enacting the goodbye scene at one's residence. MOPs organize scenes and their attached scripts into larger, goal-directed action sequences. This model generated considerable research activity (Kellermann, 1991, 1995; Kellermann & Lim, 1990; Kellermann, Broetzmann, Lim, & Kitao, 1989). Although the MOPs and scripts concepts were originally invoked to explain text and discourse comprehension (Bower, Black, & Turner, 1979; Schank, 1982; Schank & Abelson, 1977), these structures are assumed to guide the production of actions and discourse.

Other work concerned with knowledge structures has focused on the role plans and planning play in message production (Berger, 1995, 1997, 2003; Waldron, 1990, 1997; Waldron & Applegate, 1994; Waldron & Cegala, 1992). Within this purview, plans are viewed as hierarchical cognitive representations of goal-directed action sequences. Plans may be formulated as social interaction episodes unfold (Waldron, 1990) or plans that have been used successfully in the past, or canned plans, may be retrieved from long-term memory without conscious awareness (Berger, 1997; Hammond, 1989). The hierarchy principle suggests that when individuals fail to reach goals but continue to pursue them, they tend to alter more concrete rather than abstract plan features, for example, increase vocal intensity

but repeat what they said previously (Berger & diBattista, 1993). This plan alteration pattern probably occurs because changes in higher level plan elements are more demanding of cognitive resources; that is, alterations to these abstract elements necessitate cascading changes down the plan hierarchy (Berger, 1997; Berger, Knowlton, & Abrahams, 1996; Knowlton & Berger, 1997). Additional work has found that individuals whose interaction plans are more complex, more concrete, and look further ahead in the conversation are more likely to achieve their interaction goals than are less complex and future-oriented conversational planners (Waldron, 1997; Waldron & Applegate, 1994). Those with more sophisticated job interview plans are more likely to obtain jobs (Waldron & Lavitt, 2000). Although those whose construals of others are more complex tend to devise more complex interaction plans, plan complexity was found to be a better predictor of conversational effectiveness than was cognitive complexity with respect to people (Waldron & Applegate, 1994).

Like action assembly theory, plan and MOP-based approaches to message production tend to sidestep the question of how social interaction goals arise in the first place. It is a truism that individuals generally pursue multiple goals simultaneously during their interactions with others; moreover, these multiple goals are neither necessarily conscious nor stable over the course of an encounter (Berger, 1995, 1997; Dillard, 1990, 1997; Dillard, Anderson, & Knobloch, 2002). Some of these goals may be primary, and others secondary (Dillard, 1990, 1997). In this connection Dillard (1997) has observed, "Students of the goal construct need to address when goals exist in consciousness, how they arrive there, how long they stay, and by what mechanisms this movement occurs" (p. 51). Work done in connection with the cognitive rules model has sought to illuminate these processes (Wilson, 1990, 1995, 1997, 2002; Wilson & Sabee, 2003). This model postulates that cognitive rules, or associations in long-term memory, link representations of interaction goals and situational features. For instance, the goal of enforcing an obligation might be activated by a situational feature, such as the person with whom I am speaking making a promise. Cognitive rules are organized into associative networks that possess the property of spreading activation. The probability that a given rule will be triggered is conditioned on (a) the degree of fit between the rule and the features of the current situation, (b) how recently the rule has been activated, and (c) the frequency with which the rule has been activated. Once the cognitive rule is triggered, a goal is formed. Although much of the research done in connection with this model has concerned the production of social influence messages in which seeking compliance is the primary goal (Wilson, 2002), the model is general enough to account for goal formation in contexts in which persuasion or compliance is not a primary goal.

Another cognitive rule-based model has sought to explain how individuals design requests (Meyer, 1997, 2002, 2003). On this account, implicit rules or situation-action associations link an abstract representation of the request situation with a linguistic cue appropriate in that situation. The situation component of the rule specifies the type of request goal and such situational features as its familiarity and the status of those involved in it. Once the rule is retrieved, linguistic cues that can be employed to formulate a plan for a request are made accessible.

Because rules will rarely be perfectly matched with specific request situations, multiple rules may compete for selection. The rule that is chosen will determine both the speaker's perception of the situation and prompt communicative action. However, because speakers may become aware of other situational features after they have formulated a message plan but before they deploy the message, the model allows for the editing of message representations (Meyer, 1997). This feature of the model shares some similarities with the extensive work reported on editing of arguments (Hample, 2000, 2003; Hample & Dallinger, 1987, 1990).

There is considerable evidence that individuals ruminate about past and future social interactions and that these imagined interactions are related to personality characteristics and communicative performance (Honeycutt, 1991, 1995, 2003; Honeycutt & Cantrill, 2001; Honeycutt & Wiemann, 1999; Honeycutt, Zagacki, & Edwards, 1992). Individual rehearsals of future social interactions may play an important role in the formation of the interaction goals and plans that ultimately guide communicative action once interaction has commenced. Although such imaginative activity may prove to be helpful as interactions are carried out, it is possible that imagining future interactions may produce premature commitment that might serve to blind individuals to the dynamic changes in goals and plans that likely occur during all but the most routine social interactions. This possibility could be obviated to some degree if the imagined interaction included sufficient recognition of the contingencies that might arise during the course of the episode (Berger, 1997; Waldron, 1997; Waldron & Applegate, 1994).

Uncertainty Theories

Few would take issue with the notion that parties involved in the give and take of social interaction do so under conditions of uncertainty. Individuals can have neither complete knowledge of the intentions and internal states of cointerlocutors nor a full understanding of the effects the messages they deploy will produce (Berger, 1997). This uncertainty may be experienced as a subjective state or may be a state that is not necessarily consciously experienced. The uncertainty construct has been of interest to students of communication for a considerable period of time. The mathematical theory of communication characterized symbolic code systems in terms of their uncertainty (Shannon & Weaver, 1949), and uncertainty reduction was postulated to be a drive within the context of social comparison theory (Festinger, 1954; Schachter, 1959).

Based upon data gleaned from interactions between previously unacquainted strangers, Berger and Calabrese (1975) devised uncertainty reduction theory to explain recurring interaction patterns observed during initial interactions. This theory proposed seven axioms from which were derived 21 theorems. The amounts of verbal and nonverbal communication were postulated to be reciprocally related to uncertainty, and uncertainty was, in turn, related to such variables as intimacy of self-disclosure, attraction, and information seeking. The reward value of conversational partners, the degree to which their behavior conformed to normative expectations, and the probability of future interaction were later stipulated

as conditions prompting concern for reducing uncertainty (Berger, 1979). This theory motivated research concerning the passive, active, and interactive strategies individuals use to obtain information from others (Berger & Bradac, 1982; Berger & Douglas, 1981; Berger & Kellermann, 1983, 1989, 1994; Berger & Perkins, 1978; Kellermann & Berger, 1984). In addition, altered versions of the theory have provided some purchase in explaining aspects of intercultural encounters (Berger & Gudykunst, 1991; Gudykunst, 1995), social support (Parks & Adelman, 1983), and organizational behavior (Kramer, 1999, 2004; Kramer, Dougherty, & Pierce, 2004).

Sunnafrank (1986, 1990) took exception to the notion that uncertainty reduction assumes primacy during initial encounters; instead, he argued that individuals' predicted outcome values serve to facilitate or inhibit relationship development. However, Berger (1986) observed that predicted outcome values themselves result from an uncertainty reduction process. Others found that uncertainty may increase in even well-established personal relationships because of the unexpected actions of relationship partners (Planalp & Honeycutt, 1985; Planalp, Rutherford, & Honeycutt, 1988). Gudykunst's (1995) extension of the theory into the intercultural communication domain linked uncertainty and anxiety. In addition, students of relationship development have noted that individuals may not only harbor uncertainty about their relationship partners as individuals, they may also experience uncertainty about the state of their relationship with them (Knobloch & Solomon, 1999, 2002).

Some have suggested that the notion that individuals seek to reduce uncertainty in order to orient themselves during social interaction ignores potential interactions between the likelihood that events or outcomes will occur and the perceived valence of the events or outcomes (Babrow, 1992, 2001). On this account, individuals routinely integrate these two judgments to determine how to respond to potential outcomes or events. When probabilities are clear and evaluations consistent, and when positive outcomes are highly likely or negative outcomes highly unlikely, integrating the two judgments is not problematic. However, integration becomes more difficult when probability becomes ambiguous, when ambivalence with respect to evaluation arises, and when probability and outcome valences diverge—that is, when positive outcomes are associated with low probabilities and negative outcomes with high probabilities. In addition, the impossibility of an outcome may complicate the integration of probability and evaluative orientations. Within the purview of this problematic integration perspective, communication is both a potential source of problematic integration experiences as well as a resource for dealing with them (Babrow, 1995).

In a similar vein, uncertainty management theory posits that individuals may experience uncertainty in different ways, and under certain circumstances, they may seek to increase their uncertainty rather than reduce it, a notion that is consistent with the problematic integration perspective (Brashers, 2001; Brashers et al., 2000). Within the health communication domain, for example, some individuals who have been tested for the presence of a serious disease may not necessarily seek their test results as a way of coping with their apprehension about a potentially unfavorable test outcome, and individuals may attempt to cloak the delivery

of bad news in uncertain language (Brashers, 2001). Thus, under certain conditions individuals may intentionally engage in communication and action calculated to maintain or perhaps increase their uncertainty. In health care contexts, where life-threatening outcomes are frequently faced, such maneuvers may be deployed quite often. Given this array of possibilities, some have advocated a normative approach to theorizing about the relationships between uncertainty and communication (Goldsmith, 2001). In general, the boundaries of the problematic integration perspective and uncertainty management theory are significantly broader than those of the original conception of uncertainty reduction theory (Bradac, 2001). However, although the problematic integration perspective suggests a multiplicity of potential relationships among probability orientation, evaluative orientation, and communication, it “offers few specific predictions or prescriptions” (Babrow, 2001, p. 570).

Deception Theories

It has long been a commonplace to observe that deception is integral to the conduct of everyday social interaction; in order for individuals to maintain face and line during social encounters, deceit may become a necessity (Goffman, 1959). Responding with brute honesty to a dinner host’s request for a guest’s “honest evaluation” of a decidedly unappetizing dish or to an acquaintance’s request for an “honest opinion” about a recently purchased and expensive but unattractive article of clothing potentiate such face and line issues and embarrassment-blunting deceptions. Consistent with Goffman’s observations and those who have argued that during much of their social commerce people “fake it” (Miller, 2003), subsequent research has revealed that deception during everyday social encounters is both frequent and successful. However, most of this everyday deception involves the perpetration of so-called “white lies” rather than serious, bald-faced lies (McCornack, 1997). Commencing in the late 1960s and early 1970s (Ekman & Friesen, 1969; Knapp & Comadena, 1979; Knapp, Hart, & Dennis, 1974), research concerned with deceptive communication has focused on the ability of individuals to detect deception and the degree to which the behavior of deceivers systematically differs from that of nondeceivers (Miller & Stiff, 1993). The substantial research corpus generated concerning these questions suggests that individuals are not particularly adept at detecting deception, and no one nonverbal cue—for example, eye gaze, adaptor frequency, gesticulation, or pauses in speech—is likely to be a reliable indicator of deception across situations (Buller & Burgoon, 1996; McCornack, 1997).

Although the extensive empirical focus on deceptive communication has not been matched by an equal outpouring of theoretical activity, two attempts to theorize about deceptive communication have been presented in the interpersonal communication literature. Employing Grice’s cooperative principle and the four conversational maxims of quantity, quality, relevance, and manner (Grice, 1989), information manipulation theory proposed that deceptive messages “are ‘deceptive’ in that, while they constitute deviations from the principles underlying

conversational understanding, they remain covert deviations. Listeners are misled by their belief that speakers are functioning in a cooperative fashion (i.e., actually adhering to the maxims)" (McCornack, 1992, p. 6). According to the theory, information can be manipulated along the dimensions of quantity, quality, relevance, and manner either singularly or in combination to produce misleading messages; however, verbal messages that satisfy the four maxims can also be deceptive depending upon the way in which they are presented nonverbally, for example, sarcasm. Serious questions have been raised about this theory's status (Jacobs, Dawson, & Brashers, 1996), leading its creator to aver that it is "not actually a *theory* at all" because "it provides no testable propositions or falsifiable hypotheses" (McCornack, 1997, p. 91).

Interpersonal deception theory represents another attempt to devise a theory of deceptive communication (Buller & Burgoon, 1996). The 18 propositions included in this theory were intended to explain intentional acts of deception rather than unintended lies. The theory was predicated on a number of postulates, including the notion that individuals typically expect that others are telling the truth during conversations (Grice, 1989); moreover, deceptive messages usually involve (a) a central deceptive message that is verbal, (b) verbal and nonverbal messages designed to bolster perceptions of the deceptive message's veracity, and (c) inadvertent behaviors, most of which are nonverbal, that may provide cues that deception is taking place. The theory was also predicated on the assumption that the perpetration of deceptive acts and deception detection represent complex tasks that increase processing demands or cognitive load beyond the levels that would occur in nondeceptive encounters.

The theory posits that such sender and receiver preinteraction factors as expectations, goals, intentions, knowledge, behavioral repertoire, and skills, moderated by relational familiarity and the degree to which the communication context is interactive, determine the extent to which deceivers will experience detection apprehension and message receivers will be suspicious. Detection apprehension and suspicion are presumed to prompt behavioral displays in interacting parties that result in behavioral adjustments and assessments of deception success on the part of the perpetrator and honesty and credibility judgments by the receiver. The theory proposes that deceivers who are familiar with receivers and believe that receivers have knowledge about them will experience more detection apprehension and thus display more strategic information, behavior and image management, and more nonstrategic leakage behavior (Proposition 8). In addition, Proposition 11 asserts that initial and ongoing receiver detection accuracy are inversely related to receiver truth biases, context interactivity, and sender encoding skills and positively related to informational and behavioral familiarity, receiver decoding skills, and the sender's (deceiver's) deviation from expected interaction patterns. The theory also considers postinteraction assessments of deception success and deception detection.

At the conclusion of the presentation of their theory, its proponents expressed the hope that the theory would "serve as a lightning rod for researchers" (Buller & Burgoon, 1996, p. 235). The hoped-for lightning struck quickly. Critics argued that, although the theory's 18 propositions represented a potentially useful syn-

thesis, they do not constitute a theory because the propositions were not systematically related by an explanatory mechanism; that is, no central “why” question was addressed by the theory (DePaulo, Ainsfield, & Bell, 1996). In addition, these critics and others (Levine & McCornack, 1996; McCornack, 1997) observed that some of the propositions were vague and nonfalsifiable, for example, Proposition 15, which suggested “deception and suspicion displays change over time” (Buller & Burgoon, 1996, p. 232).

Because deceivers must predicate their attempts at deceit on their beliefs about the beliefs of the person whom they are deceiving, and because accurate communication is founded on this kind of belief embeddedness (Bradac, Friedman, & Giles, 1986), deceptive communication exploits the foundation for accurate communication (McCornack, 1997). In McCornack’s (1997) view, these fundamental processes suggested the usefulness of a cognitive approach to the study of deceptive communication. In advancing this perspective, he also argued that there is no necessary increase in cognitive load when people lie because many everyday deceptions are in some senses routine, for example, rendering insincere compliments. In this connection he observed that deception researchers have generally focused their efforts on the kinds of serious lies that might be told during police or military interrogations, lies that, as observed previously, are much less frequent in everyday social commerce. In addition, although he did not offer an alternative theory, he suggested that the production of deceptive messages might profitably be viewed from a problem-solving perspective.

Dialectical Perspectives

Although two dialectical perspectives developed by interpersonal communication researchers, relational dialectics (Baxter & Montgomery, 1996; Montgomery & Baxter, 1998) and communication privacy management (Petronio, 2000a, 2002), will be considered here, there are other examples of dialectical theorizing that have appeared outside of the communication field (Altman, Vinsel, & Brown, 1981; Buss, 1979). These various approaches will not be compared and contrasted, but there are significant differences among them (Baxter & Montgomery, 1996). Dialectics is not a theory in the sense of providing an interrelated set of propositions and a mechanism that explains relationships among the propositions, eventuating in a set of predictions; rather, it is a metatheoretical perspective that describes “a small set of conceptual assumptions” (Baxter & Montgomery, 1996, p. 6). These assumptions entail the concepts of contradiction, change, praxis, and totality.

Contradiction involves the unity of oppositions. For example, individuals involved in personal relationships may at once feel interdependent and autonomous with respect to their partners. Because of the interplay of these oppositions, relationships are in a constant state of flux. According to this view, not only is change constant, it “spirals” in such a way that system states are never repeated. Praxis refers to the idea that when proactive social actors make choices in their social worlds, they simultaneously become reactive objects. Individuals’ prior choices constrain their future choices. Finally, totality embodies the notion that

phenomena can be understood only by their relationships with other phenomena. A given personal relationship entails multiple contradictions, such as autonomy–connection, predictability–novelty, and openness–closedness, which interact with each other through time.

The relational dialectics perspective (Baxter & Montgomery, 1996) subscribes to a particular dialectical purview articulated by Bakhtin (1984). Under his dialogic view of social life, social interaction entails the fusion of participants' perspectives while maintaining their individual perspectives. According to this account, self-consciousness arises out of interactions with others, and the forces of unity and differences involved in dialogue potentiate an indeterminate process in which the self is in a perpetual state of flux. The relational dialectics perspective postulates that personal relationships arise through communication, and even though relationship partners may appear to hold the same view, their perspectives are necessarily different; thus, complete merger between them cannot occur. Instead, "personal close relationships, like all social systems, are always composed of both fusion with and differentiation from, both centripetal and centrifugal forces, both interdependence and independence. Within each is the seed of the other" (Baxter & Montgomery, 1996, p. 43).

Given the relational dialectics perspective, it is not surprising that individual- or psychological-level approaches to the study of relationships that employ the individual as the unit of analysis and assume unidirectional patterns of relationship development to be predicted and explained (monologic approaches) tend to be eschewed in favor of the dialogic perspective. In addition, although dualistic approaches to the study of relationships recognize countervailing forces in relationships in the form of various polarities, it is alleged that these approaches focus only on a series of static binary oppositional choices, for example, "openness versus closedness" and not the dynamic interplay among them over time.

Communication privacy management theory, another dialectical approach, seeks to explain the regulation and control of the disclosure of private information to others by recourse to a rule-based management system that aids decisions about the way privacy boundaries are regulated. Although privacy and disclosure are presumed to be dialectical (Petronio, 2000a, 2002), others have argued that the theory is dualistic rather than dialectical (Baxter & Montgomery, 1996). The theory postulates that people assume that they own private information or co-own it with others, and revealing or concealing private information may prompt feelings of vulnerability; consequently, control over boundaries is critical. Rule management processes act to regulate the revelation or concealment of private information.

Privacy rules are influenced by cultural, motivational, contextual, risk-benefit, and gendered criteria, and they can become routinized but are subject to change. These rules (a) control who will be granted access to private information, (b) regulate the degree to which privacy boundaries are permeable, and (c) specify the rights and privileges individuals believe they have and others accord them as co-owners of private information. In addition, the rules also act to coordinate the collective management of private information, as might occur within a family. However, at times, this collective coordination process may fail and boundary turbulence may erupt, giving rise to alterations of privacy rules. Because of the

theory's focus on the management of private information, it has attracted the interest of those concerned with how information about health status is managed by patients, their family members and friends, and health care professionals (Petronio, 2000b).

Mediated Social Interaction

Within the context of the new communication technologies zeitgeist, the notion of mediated social interaction immediately brings to mind various communication options afforded by computers, video conferencing, video telephones, and mobile telephones. Of course, social interaction mediated by technology has been with us for many years prior to this most recent communication technology explosion, land-line telephones, amateur radio, and letters being among these hoary technological options. It is somewhat curious why, with few exceptions, interpersonal communication researchers tended to ignore these older technologies as mediators of social interaction (cf. Hopper, 1992). In any event, computer-mediated communication (Walther & Parks, 2002) and human-computer interaction (Reeves & Nass, 1996) and the study of other new communication technologies arguably occupy a prominent position in the current communication research enterprise.

Two lines of research that have developed within the domain of computer-mediated communication are particularly germane to interpersonal communication researchers. These research domains are the very ones that one would expect to follow on the heels of a technological sea change because they mimic research traditions that developed in connection with the introduction of earlier technologies, for example, television. The first of these lines of inquiry concerns the potential deleterious effects of the new technology's use. Internet addiction (Griffiths, 1998) and the role Internet use may play in inducing social isolation and loneliness (Kraut et al., 1998) have both received research attention, in much the same way as research concerned with audience members' escapism and alienation followed the introduction of television (Schramm, Lyle, & Parker, 1961). A second research area of interest to interpersonal communication researchers invokes face-to-face interaction (FtF) as a kind of gold standard against which to compare computer-mediated communication (CMC). The general issue addressed in this case is the degree to which the loss of nonverbal cues in text-based CMC influences a variety of outcomes (Walther, 1992). Similarly, comparisons between the cues afforded by radio and television were ubiquitous when television was first introduced.

Social information processing theory was devised in an effort to explain differences in the effects that might or might not be produced by FtF and text-based CMC (Walther, 1992). Earlier research suggested that, because social context and nonverbal cues are filtered out in text-based CMC, CMC tends to be more task focused and less socio-emotionally or relationally focused than FtF communication. Because of the absence of visual cues germane to status, the CMC environment was posited to be one characterized by greater equality, and because of its

anonymity, one in which individuals might be less likely to inhibit antisocial behavior, for example, “flaming.” Although early studies comparing FtF and CMC tended to lend some support to this position, Walther (1992) observed that many experiments imposed significant time restrictions on both FtF and CMC groups. Because CMC groups typed messages, they could not communicate as much information as the FtF groups during the time allowed. The theory predicted that by allowing the CMC groups more time during which to communicate, the differences between FtF and CMC in terms of the relative amounts of task-related versus socio-emotional communication would tend to disappear. CMC may not be as efficient as FtF; however, it might be as effective when time pressures are minimal (Walther, 1992). Subsequent research has provided some support for this theory (Walther & Parks, 2002).

Although not developed by communication researchers, social identity/deindividuation theory was formulated in an attempt to explain the potential effects of increased social identity that might accrue while individuals engage in text-based CMC with a group (Postmes, Spears, & Lea, 1998; Postmes, Spears, Lea, & Reicher, 2000). Because CMC filters out some of the cues that might provide individuating information while people engage in FtF interaction, CMC might provoke a strong sense of group identity and thus encourage stereotyping of out-group members and negative behavior toward them. Because the theory’s boundary conditions are confined to group-based CMC interactions in which group salience is high, there are questions about its ability to offer insights concerning dyadic interactions in which group identity is not necessarily salient, for example, dyadic exchanges via email between friends or romantic partners (Walther & Parks, 2002).

Future Directions in Social Interaction Theory and Research

The foregoing overview suggests a number of potentially productive avenues of inquiry that interpersonal communication theorists and researchers might traverse in the future. Some of these opportunities require that the concept of interpersonal communication be distinguished from such notions as relationship development and personal relationships, a distinction that has become somewhat blurred. Interestingly, Miller and Steinberg (1975) argued for a distinction between the concepts of interpersonal communication and interpersonal relationships. Although few would dispute the notion that social interaction is vital for the development and construction of close personal relationships (Goldsmith & Baxter, 1996), it is also the case that in their daily lives, people participate in many social interaction episodes that do not involve close personal relationships. Face-to-face commercial transactions between customers and service providers and interactions between coworkers exemplify such relationships. Indeed, Miller and Steinberg (1975) observed that, given their definition of interpersonal communication, only a very small proportion of everyday social interaction would qualify as “interpersonal communication.” Although some of these everyday formal social encounters can develop beyond the constraints imposed by well-defined roles, many of them do

not; yet, these interactions can be highly significant in people's lives and they require social interaction for their successful execution (Cappella, 1987). To relegate such social interaction situations to the status of noninterpersonal relationships involving noninterpersonal communication seems overly restrictive and directs attention away from the study of social interaction in highly significant but less intimate social contexts. Because the domain encompassed by the term *social interaction* is considerably more expansive than the one represented by the interpersonal communication-as-close-relationship-development formulation, it seems wise to adopt the broader and more diverse purview afforded by the social interaction term.

Social Interaction Routines

Students of language use have asserted that up to 70% of adult language use may be formulaic (Altenberg, 1990) "despite a rich superficial variation" (Sinclair, 1991, p. 121). These formulaic utterances may be used during social interactions to achieve such goals as manipulating others to satisfy physical, emotional, and cognitive needs; asserting a separate identity; or asserting a group identity, for example, establishing a place in a social hierarchy (Wray & Perkins, 2000). This view holds that everyday language production and comprehension relies on the statistical likelihood of the expected rather than the potential for the unexpected (Wray, 1992). Linguistic formulaicity enables individuals to cope with the memory demands individuals incur during social interactions (Wray & Perkins, 2000). Others have observed that conversational routines are commonplace in everyday social behavior because the same interaction goals tend to recur frequently (Aarts & Dijksterhuis, 2000; Coulmas, 1981). The previously described work on MOPs (Kellermann, 1991, 1995) is one way of explaining how these routines may be linked and rendered more flexible in response to situational exigencies. Indeed, there is the distinct possibility that the same generalized interaction routines are employed across a wide spectrum of social contexts and relationship types.

Although social interaction routines are obvious in the case of commercial service encounters (Ford, 1999; Leidner, 1993), with some exceptions, routines have received relatively little attention from interpersonal communication researchers, especially in the context of close personal relationships. In this domain, idioms and the novel uses of language have been emphasized (Bell, Buerkel-Rothfuss, & Gore, 1987; Bell & Healy, 1992), even though social interaction routines probably become both more ubiquitous and more firmly entrenched as relationships grow closer through time. It seems reasonable to suppose that in the everyday lives of most people, social interaction routines, including those enacted between individuals involved in long-term, close relationships, are occasionally punctuated by novel interaction episodes. The fact that routines are responses to the memory demands imposed by social interaction suggests that episodes of conflict involving close relationship partners may more quickly devolve into routine arguments that have been enacted frequently in the past, making conflict management difficult (Roloff & Soule, 2002). The critical point is that conversational novelty, even as it manifests itself in close relationships, is very likely enacted against a background of interaction routine. Indeed, it is these ubiquitous interaction routines

that serve to define that which is perceived to be novel; consequently, it is difficult to understand why interaction routines have been, for the most part, ignored by interpersonal communication researchers.

The fact that social interaction routines and the important functions they serve are germane to social interaction across the entire spectrum of relationships, both interpersonal and noninterpersonal, makes a larger point with respect to theory development in the interpersonal communication domain. Theories that seek to explain interpersonal adaptation, message production, uncertainty management, deception, and dialectical contradictions, like theories that might explain the generation and deployment of social interaction routines, are abstract enough to transcend such interaction-specific contexts as romantic relationships, friendships, spousal relationships, and family relationships, as well as more formal relationships. Thus, they afford considerably more explanatory leverage than theories developed exclusively to explain social interaction phenomena within highly specific relationship types, for example, mentor-protégé relationships (Kalbfleisch, 2002).

Social Interaction and Emotion

Interpersonal communication researchers have increasingly recognized the variety of important functions emotions play in social interaction (Andersen & Guerrero, 1998b; Metts & Planalp, 2002; Planalp, 1998, 1999, 2003). Although a substantial literature concerning communication and emotion has been produced by interpersonal communication researchers, much of it has been guided by theories devised by denizens residing outside of the communication research community. Persuasive arguments have been marshaled for the importance of emotions in theorizing about communication and relationship development (Planalp, 1998, 1999, 2003), but general theories concerning emotions and social interaction remain to be generated. Much of the previously cited work on emotionally supportive communication has been guided by original theory; however, even in this case there is the need for theory that links the features of emotionally supportive messages with the outcomes they produce (Burlison, in press). The communication and emotion area seems to be an ideal one for theoretical development by interpersonal communication researchers for at least three reasons. First, there is growing recognition that emotions are not merely psychological phenomena; they can be defined through social interaction, thus making them ripe for study (Metts & Planalp, 2002). Second, because people may experience similar emotions with the same people repeatedly, social interaction routines may evolve to deal with emotion management in such situations (Metts & Planalp, 2002). Third, some have suggested that at least one antecedent to the experience of emotion is the disruption of plans and goal-directed behavior (Berger, 1997; Mandler, 1975; Srull & Wyer, 1986).

As interactions between service providers and disgruntled customers, professors and disappointed students, and 911 emergency services dispatchers and fearful callers (Tracy & Tracy, 1998) all demonstrate, the experience of highly intense emotions during social interaction is hardly confined to close personal relationships or relationships that are necessarily likely to become close. One might contend that the norms governing emotional expressions in these kinds of formal relationships serve to dampen their extremity and that more intense emotions

occur in close relationships. However, the fact that individuals sometimes show intense emotions toward complete strangers in public venues (for example, “road rage” and other violent confrontations), customer complaints, and speakers crying in front of large audiences suggests that researchers interested in social interaction and emotion cannot afford to ignore emotional expressions in these more impersonal social interaction contexts.

Message Reception and Interpretation

As is apparent from the foregoing review, several interpersonal communication researchers have shown intense interest in developing and testing message production theories. In stark contrast to this lively area of research activity, very few interpersonal communication researchers have proposed and evaluated models and theories of message reception and interpretation, and some have noted this obvious gap in the literature (Burlison, in press). One notable exception to this state of affairs is the work on second-guessing theory (Hewes, 1995; Hewes & Graham, 1989). This theory explicates the conditions under which individuals are likely to reinterpret messages they have received based upon source and message cues that prompt such reinterpretations. This theory has obvious implications for the study of deceptive communication. Yet, deception researchers have paid it little heed. In any case, the study of message interpretation is an area that seems to be rather wide open for exploitation by interpersonal communication researchers. As will become clear in the following section, both message production and message reception skills are central to social competence.

Social Interaction Competence

Although there has been sustained interest since the 1970s in the notion of communication competence among interpersonal communication researchers (Wiemann, 1977), the concept remains difficult to define in a precise way and, as a result, there is no theory of social interaction competence (Parks, 1994; Spitzberg & Cupach, 2002; Wilson & Sabee, 2003). Clearly, there are compelling practical reasons to understand how individuals develop or fail to develop the social interaction skills associated with interaction competence. Indeed, the panorama of occupational pursuits in which such skills are deemed important to success is truly astounding, for example, business, government, politics, counseling and social work, health care, education, and the military. To this already lengthy list could be added the skills involved in conducting social interactions with friends, romantic partners, and family members.

Of all the interpersonal communication research domains considered in this presentation, this is arguably the one in which members of the general public are likely to show the most interest and to find most useful in the conduct of their daily lives. The financial success of the self-help book industry attests to this possibility. One difficulty in meeting the public’s demand for useful information about such social interaction skills is that these skills appear to be domain specific (Spitzberg & Cupach, 2002). Indeed, a volume devoted to communication and social interaction skills (Greene & Burlison, 2003) contains chapters that cover such diverse areas as nonverbal communication skills (Burgoon & Bacue, 2003),

impression management skills (Metts & Grohskopf, 2003), and the skills involved in informing and explaining (Rowan, 2003), arguing (Hample, 2003), persuading (Dillard & Marshall, 2003), managing interpersonal conflict (Canary, 2003), story telling (Mandelbaum, 2003), negotiation (Roloff, Putnam, & Anastasiou, 2003), group decision making (Gouran, 2003), teaching (Daly & Vangelisti, 2003), health care (Street, 2003), and communicating across cultures (Hajek & Giles, 2003). As if these were not enough distinct skill domains, several additional chapters in the volume deal with interaction skills in the context of various types of close relationships.

Given the wide variety of social interaction competence domains and their potential independence—for example, an individual might be a top-flight corporate negotiator but at the same time a dreadfully poor manager of conflict with her spouse and children—the search for general principles of social interaction competence may prove to be difficult. However, the abstract-minded theorist might be encouraged by the possibility that there may be general message production (Berger, 2003; Greene, 2003) and message reception skills (Wyer & Adaval, 2003) that transcend some of this contextual variety. Furthermore, some of the contextual variability may be more apparent than real. For example, effective persuasion, argumentation, negotiation, and conflict management skills may share a number of communalities, and the skills associated with providing emotional support to friends and family members may be similar to those required by individuals working in health communication and other social service contexts. At this juncture, it is difficult to know with any certitude the level of abstraction at which theories of social interaction competence might be productively cast. This will become clearer when the potential skill commonalities among ostensibly different social interaction contexts are identified, thus enabling researchers to establish reasonable boundary conditions for their theories. The potential synergy created by public demands for answers to practical questions about social interaction skills coupled with the theoretical ingenuity of social interaction researchers could provide considerable excitement in this area. However, some have suggested that prescriptions regarding “effective communication” that arise from this research area are particularly subject to ideological influences that may serve both to taint research findings and encourage parochial and skewed conceptualizations of “communication competence” (Parks, 1982, 1995).

Mediated Social Interaction

As noted earlier, much of the recent theoretically driven research concerning CMC has sought to document the effects of cue loss, relative to FtF communication modes, on judgments and relational outcomes. Other, less theoretically based research has focused on potentially deleterious psychological effects of Internet use. Beyond CMC and FtF comparisons and the potential negative effects of Internet use, there are other ways in which the use of CMC and other forms of mediated communication might influence nonmediated social interaction.

Since the invention of the printing press, progressively more of the reality that humans experience has become symbolically mediated. Because of this development, people are now less exposed to direct, natural information from the physical world than they were in the past. The ready availability of Internet and CMC-

related communication modes has augmented this trend within the domain of social behavior. The concern is that as people's experience of reality becomes progressively more symbolically mediated, they will lose contact with the world that is increasingly represented to them in digital form (Borgmann, 1999). Moreover, symbolic representations of reality are subject to deceit, thus raising the specter of widespread manipulation of the public.

Although there is considerable merit to these general concerns, there is a related issue that arises in connection with the use of new technologies. This concern involves potential interactions between the use of technologies that enable mediated social interaction and the conduct of nonmediated social interaction. As this review has revealed, the main research question with respect to CMC is how potential limitations in the medium, for example, slow information exchange rates, influence various outcomes when compared with FtF interaction. What is lost in this approach is the possibility that the use of technologies that enable mediated social interaction significantly alters the nature of nonmediated social interaction. That is, the interaction procedures and conventions associated with the use of these technologies may subtly insinuate themselves over time into the conduct of nonmediated social interaction, thus altering the fundamental nature of FtF communication (Berger, 2004).

The issue here is not so much one of the interactions between the content of mediated social interactions and the content of their nonmediated counterparts. Rather, the focus is on how the conduct of FtF interaction is potentially altered as the result of mediated social interaction experiences. For example, using text-based CMC on a regular basis might influence patterns of self-disclosure, information acquisition strategies, turn taking, speech rate, and interruptions when individuals engage in FtF interactions with others. Thus, although individuals are not physically imbued with performance-enhancing technology, they resemble cyborgs in that their behavior in FtF interactions is partially guided by procedural knowledge acquired by their participation in CMC. The point is that new technologies do not simply provide individuals with more communication channels and more immediate access to them, although that is how these technologies are marketed to the public; the communication procedures and conventions associated with the technologies' continued use might influence their users' conduct in FtF interactions. This cyborg model suggests that extensive and widespread exposure to CMC and other forms of mediated social interaction may, over time, alter in a fundamental way the nature of FtF interactions. Lest the reader be skeptical about the plausibility of the cyborg model's claims, some have suggested that everyday life in the United States is now lived more like a movie because of the subtle, long-term influences of the film and television industries (Gabler, 1998). Indeed, professors and teachers who have plied their trade for more than 30 years are likely to observe that contemporary undergraduates expect them to be more entertaining performers than did their undergraduate counterparts of an earlier era, suggesting that long-term exposure to entertainment media may alter expectations about those performing before audiences outside of traditional entertainment venues.

It is clear that routine commercial transactions that used to entail social interaction between human agents are increasingly becoming venues for human-ma-

chine interaction, for example, ATM machines, gas purchases at the pump, and computer-based “conversational” information systems such as those used by airlines and telephone companies. In addition to this trend, mediated forms of social interaction may assume even greater prominence in people’s lives if energy shortages and the higher energy costs associated with them, coupled with the failure to develop alternative forms of inexpensive transportation, significantly curtail people’s physical mobility. Furthermore, increased anxiety associated with terrorist threats may continue to attenuate individuals’ physical mobility. Large-scale dislocations like these may not only promote the kinds of effects suggested by the cyborg model, they may also induce fundamental changes in the nature of individuals’ social networks and group allegiances.

Conclusion

This review has shown that several theoretical constructs that are of undeniable importance in understanding social interaction, for example, communication competence, continue to wander the intellectual landscape in search of theory. A potential explanation for this state of affairs is confusing the potential importance of a phenomenon with problematizing it (Burlinson, 1992). Merely observing that deception frequently happens during social interactions or that people in close relationships sometimes become jealous or that some people are better than others at gaining compliance does not ipso facto call for theory development. It is when “why” questions are posed about the phenomenon that theory is required. Justifying the study of a given phenomenon by recourse to arguments concerning its alleged importance, its ubiquity, or both, then, does not generally give rise to theory, and research premised on such a rationale may yield data that speak to the ubiquity of the phenomenon but to little else. More must be done to problematize the fundamental processes that enable individuals to use the tool of social interaction to reach their everyday goals (Berger, 2002b). In the absence of theories that arise from this problematizing activity, data, as “interesting” as they may be, are likely to enjoy only a relatively brief half-life.

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