Special Section

Theories, Boundaries, and All of the Above

Joseph B. Walther

Dept. of Communication
Dept of Telecommunication, Information Studies & Media Michigan State University

Our immediate challenge in computer-mediated communication (CMC) research has to do with refinement of theories, and the most important refinement has to do with the articulation of boundary conditions. Boundary conditions stipulate the contextual conditions in which different theoretical chains-of-events are expected to occur. Boundary specifications will help us understand when one theoretical process applies, or when a different one applies, or even—and this is no easy task—precisely when communicators shift from one type of process to another. Boundaries are being foisted upon us by technological developments that may limit (or maybe revise) the scope of our extant theoretical frameworks. There are implicit boundaries that have always been there but which we have ignored, misapprehended, or failed to investigate.

Because we have not done a good job of articulating boundary conditions we have reached a point in the field's development at which our summaries can appear to college students to be just as incoherent as many more established disciplines' textbooks. We can talk about how online social interaction phenomena were accounted for in the 1980s in reference to Cause A; in the 90's, other researchers claimed that the same phenomenon was due to Cause B's dynamics, and they did an experiment where they did X and Y to show how B was correct and A was not; but in 2002 Him and Her argued that the phenomenon was actually due to Cause C, and their sophisticated study which isolated factor D showed that C was in fact true. We can look back across an extremely short history of research and find that at one time or another, radically different explanations have been applied, quite persuasively, to the same phenomena.

On the one hand, this could be healthy progress. Scientific advancement should be cumulative and new explanations should be capable of subsuming old findings. But our current state may not reflect knowing which explanation definitively prevails, or failing to examine whether they address different phenomena and needing to identify which explanation may or may not be true under different specifiable circumstances.

The lack of this kind of boundary precision has allowed the field to see a dramatic lack of progress when, at times, researchers simply reject one set of theoretical precedents and findings simply because others seem more appealing or useful (e.g., Epley & Kruger, 2005). I am not sure how proud we should be when the correct test answer is E: All of the Above.

Why has this gross theoretical pluralism come to be? I have speculated elsewhere (Walther, in press) that CMC research faces some usual and some novel challenges with respect to (a) examining the assumptions of competing theories, (b) testing the precise mechanisms that our theories specify (rather than accepting that certain things must have happened because their related outcomes are observed), and (c) the difficulty in operationalizing some aspects of CMC configurations and social arrangements for research which necessitates leaving other aspects fixed and unexamined, making generalization from study to study most difficult. One side effect of these challenges is that it is tempting, and not difficult, to explain almost any set of results in terms of any explanatory perspective.

Here is an example. When I offered the social information processing (SIP) approach to relational communication in CMC back in 1992, it held a weakness, much like one of its epistemological forbearers, uncertainty reduction theory (Berger & Calabrese, 1975). SIP predicted that with sufficient interactions, CMC users—no matter how many at a time—would come to develop affinity via CMC. A second claim was that interpersonal information is exchanged via language and text, not just via nonverbal behavior, albeit more slowly. More exchanges lead to more depth of impression (a strong assertion) and to nicer relations (a naïve assertion). In another part of the theoretical forest, theorists were explaining how CMC affects perceptions in groups, due to distinctly group-based and decidedly not interpersonal factors. The social identification/deindividuation model (SIDE; Reicher, Spears, & Postmes, 1995) dictates that when interpersonal impressions emerge (rather than depersonalized group perceptions), the prediction game is over, because interpersonal perceptions occur in random, idiosyncratic ways, not uniformly positive ones. Good relations via CMC occur, then, due to attraction to the group identity, and not because of interpersonal information accrual. And so a problem: Two theories, with apparently discordant fundamental mechanisms, predicting the same outcome in terms of attraction in CMC.

If a sophomore was to notice this cute little theoretical problem, what else could he say, but, E: All of the Above.

There are two ways an enterprise could go from a juncture like this: corner the market or diversify. In diversification each entity focuses on its core strengths, bringing particular value to the enterprise, rather than attempting a monopoly. What has occurred?

At one time there was a noticeable effort toward diversification. We once read (Postmes, Spears, & Lea, 2002) that SIDE effects are not expected to obtain in dyadic CMC. Not enough group to kick in the group effect, as it were. Too dyadic, too interpersonal, there you have it. Lately, a reversal toward monopoly: Like the social identification epidemic that has run through social psychology, it has asserted itself

over all text-based CMC. When you communicate online, even dyadically, you do so as a member of some group (unless you see a picture or read a biography; Tanis & Postmes, 2003). Certain review essays (e.g., Postmes & Baym, 2005) promote the monopoly by claiming that others' experiments support not the theories others thought they were testing but a unified intergroup identification model instead. This model, they argue, strikes a unique balance between technological causes and human agency, accusing other approaches of determinism as though determinism is something to scrape off one's shoe, and ignoring the deterministic nature of their own theoretical calculi.

These could have been productive allegations. Such challenges might trigger astute re-analysis of previous works and data. They could prompt careful reflection on conditions, measures, and research designs that might lend data-analytic support more clearly to one or another position under certain specifiable circumstances. Unfortunately, such charges seldom offer more than selective interpretations. They have ignored scrutiny of methodological features among studies which should challenge simple comparisons, such as measurement aspects, temporal variations, and the radically different role of interactive or spontaneous communication across research efforts. These issues are inseparable from our work but they are too seldom the focus of our discussions.

These comments should not be construed as a universal rejection of one model in favor of another; this is exactly what I urge against. The social identification approach provides a very powerful account of some important aspects of online communication. Lots of the things on the Internet are exceptionally groupy, and in some domains the Internet is getting groupier. My colleagues and I have recently discussed several instances where there is much to be learned by applying group identification principles in new Web 2.0 applications, such as those which make prominent anonymous peer-based commentaries, recommendations, and rating systems (Carr et al., 2008). If ratemyprofessor.com postings and eBay seller ratings aren't very SIDEy phenomena, I don't know what are. At the same time, a perspective that is decidedly group-cognition and depersonalization-based is a hard fit for the increasingly prominent interpersonal media that appear on the electronic landscape. And it is hard to accept the assertion that social identification is the basis for online relationship development of every nature.

Our responsibility is to diversify, not pluralize or monopolize. Researchers need to examine whether cross-contextual assumptions applied to some theory fit certain contexts after all, and set it aside when the assumptions do not. Efforts are needed to discern how and under what circumstances and with what inducements online communication facilitates one process or another, or movement between modes. We need to find whether IMing and texting and e-mailing and blogging are what they are not (only) on the basis of their groupiness but in terms of what their affordances of time-, place-, and circumstance-busting facilitate in terms of amusement, intimacy, and other costs and benefits. Essentially, as Thibaut and Kelly (1959) might have asked (in their analysis of the interpersonal basis of group relations), in what way

might different technologies reduce costs and increase rewards for some relationships relative to others?

The reason that this issue is so prescient now is that, as colleagues in this forum point out, CMC itself is diversifying and normalizing. There are many forms of it, and some have become so ubiquitous that they are almost unnoticeable. Some would suggest that the next wave of CMC research should examine radical multimodality: Since people communicate within any single relationship across many media (social networking sites, e-mail, text messaging, blogs, picture-sharing, games, etc.) we need to see how all these media fit together and define social life. While the premise is interesting, the goal seems ill-defined. What are we looking for? How will we explain it in such a way that we do not have to abandon explanations when the next killer app comes along? We can describe the combinations and variations endlessly, but all this tells us is what is, and not what could (theoretically) be, and how these events are conceptually different from that which came before (if they are).

New media do not require that we abandon older theoretical notions. We may ask, for instance, do Webkinz pets online inspire a child's parasocial interaction, or Proteus effects? (Rubin & McHugh, 1987; Yee & Bailenson, 2007)? Does the selective self-presentation in a dating site user's profile picture reflect hyperpersonal processes (Ellison, Heino, & Gibbs, 2006), which previously described text-only interactions? Do social networking sites change the balance among traditional information-seeking strategies that prospective partners use to learn about one another (Antheunis, Valkenburg, & Peter, 2008)? Does deviance in a virtual group trigger a shift from intergroup to interpersonal perceptions or a "black sheep effect" (Wang, Walther, & Hancock, in press)? Does Second Life individuate or anonymize?

Online communication is becoming too central a field of study not to seek more precise explanations, or to foster the indiscriminate application of everything we have thought before. We need to focus on discovering when the answer is A, this theory; B, that theory; C, all of the above; D, none of the above; or E, it depends. The correct answer may often, in fact, be E. Essay question: On just what does it depend?

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Author Biography

Joe Walther is a Professor in the Department of Communication and the Department of Telecommunication, Information Studies & Media at Michigan State University. His research focuses on the use of alternative communication cue systems in relationship dynamics and their outcomes, with a particular focus on computer-mediated group and interpersonal interactions, areas in which he has published original theories and empirical research articles. He has held appointments in Psychology, Information Science, and Education and Social Policy at universities in the U.S. and abroad. Formerly a division chair in the Academy of Management and the International Communication Association, his honors include the National Communication Association's Woolbert Award for an article that has stood the test of time and substantially influenced thinking in the discipline for more than 10 years.