A reconnaissance of CMM research

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ABSTRACT

CMM represents a communication approach to the study of human systems that focuses on patterns of communication that make the social worlds in which people live and have their being. This essay takes stock of research in the CMM tradition published during the 30 years since it was introduced, organizing it into five streams: (1) interpersonal and intercultural communication, (2) organizational communication and management, (3) public communication, (4) therapy and consultation, and (5) conflict, mediation, and dialogue. This research provides an impressive empirical basis for treating CMM as sensible (its concepts track onto empirical evidence) and useful (its principles and models help us decide how to act into unfinished situations) in both research and practice. While our summary includes nearly 100 studies, this is not an overwhelming number, and the story is also one of missed opportunities, under-reported research, and prematurely abandoned research traditions. We characterize the evolution of CMM as a theory and the concomitant shifts in the research methods of choice, and suggest that future CMM research may take advantage of new textual, narrative, and discourse analytic methods as well as collaborative, participatory, and action research designs.

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The preface of the first book-length presentation of CMM, Pearce and Cronen’s (1980) Communication, Action, and Meaning, ended with the authors' belief that the concepts of CMM "will have considerable value when applied to traditional intellectual problems and pressing social issues." Writing nearly a quarter of a century ago, they noted that this value "awaits the demonstration." Since then, CMM concepts have been applied to intellectual problems and social issues in a variety of ways by therapists, teachers, consultants, managers, mediators, and researchers. Several papers in this issue of the journal address the question of whether it has "considerable value"; we focus on published research in the CMM tradition.

If CMM were a theory constituted by its propositions, a review of relevant research might be organized by those propositions and would conclude by assessing the weight of the evidence supporting them. However, CMM isn't that kind of theory. Although it is possible to articulate propositions within CMM, they function as invitations to engage the events and objects of the social world in particular ways, as devices facilitating what Wittgenstein (1953) called "aspect-seeing" or what Rawls (1971) and Geertz (1973) called making "thick descriptions." To the extent that CMM research is cumulative, it is not as proof of its propositions but as a basis for confidence that the social philosophy which CMM comprises, and the concepts and models which it generates, are sensible (in the sense that they track onto empirical evidence) and useful (in the sense that they help us know how to go forward together in action).
We've deliberately used the phrase "CMM research" because it includes both studies "about CMM" and "from a CMM perspective." Most of the research reviewed in this paper is "about" something else (families, mediation, public discourse) but "from" a CMM perspective. While many of these studies foreground CMM concepts as structures for seeing the data as one thing rather than another ("aspect-seeing," in Wittgenstein's term) or as a heuristic for doing "thick description," in other research, CMM isn't mentioned at all (e.g., Weiler & Pearce, 1992) or appears only in the footnotes (e.g., Pearce, 1985).

Streams of CMM research
One way of describing CMM research focuses on the contexts in which it has occurred. Using categories familiar to those in CMM's home academic discipline in communication, we describe these as five streams of research: (1) interpersonal and intercultural communication, (2) organizational communication and management, (3) public communication, (4) therapy and consultation, and (5) conflict, mediation, and dialogue.

Interpersonal and intercultural communication research
CMM was initially positioned as an interpersonal communication rules-theory (Pearce, 1976). Embedded in the practices that dominated social science research during the 1970s, the first wave of research focused on quantitative experiments or case studies seeking evidence that CMM concepts led to productive ways of posing research questions. Pearce and Cronen (1980) described this "first phase of the CMM project" as one in which they and their colleagues took their "perceptions of the nature of human communication, made them explicit in a metaphor, and then converted that metaphor to measurement models, research techniques, and empirical findings that ground a social philosophy" (Preface). This philosophy might be stated that we should focus on communication itself rather than look through it to other things; that the to- and fro-ing of persons-in-conversation is the basic social process, and that patterns of communication make the social worlds in which we live and have our being.

Cronen, Pearce, and Snavely (1979) tested whether there was sufficient empirical support for looking at the social world through the "communication perspective." Focusing on unwanted repetitive patterns (URPs) in a wide range of relationships and topics, they developed a measurement model that enabled them to compare different configurations of "logical force." Participants described the act-by-act sequence of episodes, and then assigned numerical values to the strength of the constitutive and regulative rules impinging on each act. Using regression analysis, the researchers were able to account for more than fifty percent (a very high amount in social scientific research) of the variance in participants' perceived levels of enmeshment in and their evaluations of the episodes based on the strength and configuration of logical forces. Specifically, people felt stuck in unwanted episodes when the contextual and prefigurative forces were high and the practical and implicative forces were low. The authors concluded that, "the structural aspects of rules may be systemically related to structural types of episodes" (p. 238).

CMM's hierarchy model was an extension of Bateson's (1972) claim that there can be no
meaning without contexts and the "interactional view's" axiom that all communication includes both "content" and "relationship" in which the latter is the context for the former. Pearce and Conklin (1979) conducted an experiment in which the independent variable was whether a question was answered directly ("yes") or indirectly ("is the Pope a Catholic?"). The hierarchy model provided an way of explaining how people make sense of messages in which the meaning bears little or no resemblance to the textual content of the utterance. Following up on this study, Pearce, Harris, and Cronen (1981) developed a point-by-point comparison of CMM and the "interactional view."

A series of studies explored CMM's claims of emergent properties in the interpersonal logic of meaning and action produced when people engage in conversation. Had chaos theory and complex adaptive systems theory been available in the mid-1970s, CMM would likely have borrowed heavily from it. Drawing on the language in use, a nonsummative relationship was posited between individuals' rules for meaning and action and the logical force in their conversations. Pearce, Cronen, Johnson, Jones, and Raymond (1980) studied this nonsummative relationship in a series of experiments featuring simulated conversations in which the logical force was manipulated. Each participant was assigned a set of regulative rules; some rules were complex, allowing participants to choose among responses, while others were simple. By pairing different participants, each of whom was required to act only as allowed by their rules, different interpersonal logics were created, some of which were more or less complex than the rules of the individuals participating in them. Participants were told that "good" communication involved using all of the language units in their vocabulary, and most found that the interpersonal logics prevented them from achieving their goal. After engaging in simulated conversations, each participant rated their partner on communication competence and likeability. Individuals following the same rules were rated differently depending on how the simulated conversations went, supporting both the observation that our culture tends to praise and blame individuals for producing conjoint actions, and the claim that persons-in-conversation, not persons individually, are the most useful unit of analysis.

The nonsummative relationship between individual competence and interpersonal patterns was continued in a case study of a family. The family was selected because it had no pathological presenting problems and the individuals involved were unusually articulate. To her surprise, Harris (1980) found paradoxical patterns in the interpersonal logic of this family that simultaneously compelled and prohibited members from acting in specific ways. In addition to supporting the nonsummative relationship between individuals and the patterns they co-create, this study stimulated thinking about nonlinear and paradoxical patterns of relationships within the hierarchy model (for examples of how this idea has continued, see Holmgren's and Oliver's contributions to this issue). This finding also contributed to an openness to see good communication as occurring even in the presence of things otherwise thought inimical to it, such as paradoxical injunctions, and in the absence of things otherwise thought necessary to it, such as understanding.

Using the serpentine model and tracking both participants' interpretations of each sequential act, the "Jan and Dave" study (Pearce & Cronen, 1980, pp. 273-283) provided empirical support
for the counterintuitive CMM claim that "good" communication does not necessarily require understanding. An interpretive analysis of the "breakthrough" episode in the development of their relationship found that it hinged on their differing interpretations -- an "ultimatum" or a "question" -- of a particular statement. Had they "understood" what each other meant, their ability to coordinate around this issue would have been lost.

Other studies addressed the theoretical question of whether it is more useful to think of communication as irreducibly complex and contingent, or whether it only seems complex and contingent because we have not yet discovered the simple, linear laws of social interaction. In a formal comparison of CMM and "uncertainty reduction theory" (Berger & Calabrese, 1975), Harris, Cronen and Lesch (in Pearce & Cronen, 1980, pp. 216-223) asked college students to describe the communication competence displayed by newly met conversationalists. The results displayed shifting patterns in which individual competence is related to the structure of the social system, a finding that supported CMM's preferential option for complex, fluid and plastic concepts rather than mechanical or linear concepts about social action.

CMM's concept of "mystery" is the ultimate claim that communication is irreducibly complex and contingent, and was initially studied – using traditional humanistic methodologies – as the "ineffability" of experience. As a deliberate alternative to Searle's "principle of effability," which states that everything can be said and said clearly, Pearce and Branham (1978) found surprisingly common claims that speakers were unable to satisfactorily express their experience, and that those most gifted and subtle in their use of language make these claims most frequently. Among other things, these studies supported the effort of explaining communication by giving increasingly thick and multiple descriptions of communication events.

CMM has always been interested in how communicators could call into being "better" social worlds. The first wave of research focused on "communication competence." Harris (in Pearce & Cronen, 1980, pp. 197-209) developed a model that focused on the relationship of the individual's abilities (minimal, satisfactory, and optimal) and the characteristics of the system (closed, open, random) in which he or she is acting. In an experiment with a 3 x 3 design, 180 college undergraduates read conversational transcripts in which one of the participants ("Pat") used 1) no aligning actions (minimal competence), 2) satisfactory aligning actions, and 3) meta-aligning actions (optimal competence) and in which the episode showed 1) no movement, 2) movement from low to high intimacy, and 3) movement from high to low intimacy (Harris, Cronen and Lesch, in Pearce & Cronen, 1980, pp. 216-224). Subjects were asked to rate Pat's communication competence, social attractiveness, and enmeshment in the episode, the valence of the episode, and (in order to compare predictions derived from Berger and Calabrese's theory) the amount of uncertainty reduced in the episode. Strong support was found for the conceptualization of competence as relational; having to do with the "fit" between individual performance and situational structure. This finding was supported using a very different research methodology – rhetorical criticism – in Branham' (1980) analysis of the communication competence of those who claim to be unable to express themselves satisfactorily. Counter-intuitively, he found that confessions of inability to say what one means (ineffability) often constituted an optimally
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competent action in specific situations and was perceived as more effective than an attempt – particularly a failed attempt – at description. Saying no word, it appears, is better than saying the wrong word, but not so good as doing the right thing, which might include a self-referential statement about not being able to say the right word or doing something that changes the situation so that the right word can be said.

Studies primarily designed to give empirical tests of various CMM concepts gradually gave way to studies using those concepts to explore specific dynamics and challenges in families. Building on Harris (1980), a series of comparative case studies explored the interpersonal logic of family violence, finding that violence takes on its meaning and is perceived as something that the aggressor cannot control by its location in the logic of interaction (Harris, Alexander, McNamee, Stanback, & Kang, 1984) and within specific contexts (Harris, Gergen, and Lannamann, 1986). Boynton and Pearce (1978) were interested in how families of submariners manage the disruption caused by the cyclic pattern of 6 months with the husband/father home followed by an equal time when he is away and unreachable. Using cluster analysis of the episodes that comprise various forms of life within the experience of the subjects, they showed that this pattern meant different things, depending on whether the family developed separate clusters of episodes for the husband/father home and husband/father away periods, or whether they had episodes that had similar functions in both.

CMM always assumed that communication patterns were culture-dependent, and "culture" was suggested as one of the levels in the original hierarchy model. While some intercultural research retained the quantitative hypothesis-testing model of social science focusing on the relationships among practical, prefigurative, and logical forces as they relate to self disclosure (Nakanishi, 1986; Wolfson & Pearce, 1983), CMM quickly took a qualitative turn in its research with an emphasis on describing the social realities of a human system using interviews and ethnographic methods. Several studies continued the interest in "initial interaction" in conversation (Alexander, Cronen, Kang, Tsou, & Banks, 1986; Cronen & Shuter, 1983), showing that there are strong rules for such mundane matters as what one asks or says on first meeting; following these rules is prefigured by and reconstructs one's culture; and violations of these rules have serious conversational consequents. In a series of studies of the perceptions of films, Wolfson and Norden (1984) and Norden and Wolfson (1986) compared the rules for meaning and action and the interaction patterns of people in different cultures.

This line of research subsequently bifurcated. One tradition combined intercultural settings and interpersonal competence. Pearce and Lannamann (1978) and Pearce and Kang (1986) added to the descriptions of "optimal competence," arguing that it is a minimal requirement for those acting into multicultural settings, and Kang and Pearce (1983) did a study of "reticence" in two cultures as part of a reflection about the need for "transcultural concepts" in communication theory. The other tradition consisted of thick descriptions, using CMM concepts, of specific cultural communication patterns. For example, Chen studied the public enactment of "face" at a Chinese dinner conversation, and Cronen, Chen and Pearce (1988) used this analysis to display the critical potential of CMM concepts. Jia (2001) used CMM along with circular questioning
to explore the concept of lian/mian in Chinese culture as the basis of his argument that there is a need to weed out the excessive communalism in Chinese culture.

**Organizational and management research**

CMM research on organization and management research began with rules-based perspectives on existing organizational phenomena to sophisticated processes for consulting and leadership. As an early contributor to the emerging interpretive paradigm in organizational studies, Harris and Cronen (1979) developed an interview protocol that allowed them to examine the relationships among the master contract, rule structure, episodes, and speech acts that, they argued, comprise an organization's culture. The findings of their study of an academic department led them to reconceptualize communication competence in terms of the ability of organizational members to co-orient themselves to the master contract and coordinate their actions with others within the system of constitutive and regulative rules.

Rose (1985) took CMM’s notion of closed, open, and turbulent systems and linked them to organizational adaptation, arguing that open systems -- patterns of coordination that balance prefigurative and practical forces -- are more likely to facilitate organizational adaptation. In a later essay, Rose (1988) used the concepts of constitutive and regulative rules, the hierarchy of meaning, and logical force to help distinguish among different cultures within an organization.

Barge, Downs, and Johnson (1989) used CMM to explore the attributes of effective leader conversation from a symbolic perspective. Using Cronen, Pearce, and Snively’s (1979) conversational typology, they found that effective leadership conversation was viewed as more coordinated, coherent, and positively valenced with effective leadership conversation being associated with coordinated conversations and positive spirals and ineffective leader conversation associated with enigmatic episodes and unwanted repetitive patterns. They concluded that effective forms of leadership conversation are flexible and that effective leaders tend to be satisfactorily or optimally competent.

Recent management research has shifted away from exploring how CMM can be used to reconceptualize existing organizational concepts to documenting how CMM concepts can elaborate managers’ grammatical abilities to act within organizational episodes. Most of the published work has taken the form of coaching managers and consultants to use CMM concepts such as the hierarchy of meaning, the serpentine model, constitutive and regulative rules, and moral conflict can be used as tools for managers to make sense of situations (Campbell, Colidcott, & Kinsella, 1994; McCaughan & Palmer, 1994; Littlejohn, 1995). Barge (in press-a, in press-b) has explored the practice of managers who have been trained in systemic methods and have become acquainted with the CMM worldview. His research suggests that managers are able to coordinate the multiple stories constituting organizational life through reflexive practice and systemic story making.

In *Communication and the Human Condition*, Pearce (1989) extended the idea that there are recurring forms of communication, describing monocultural, ethnocentric, modernistic, and cosmopolitan, and that these forms of communication are reciprocally related to ways of being.
human. These ideas have been developed in different ways in separate lines of inquiry, both integrating research and practice. Brown's work on business ethics (2003) and corporate integrity (in press) refines the analysis of the four "cultural types" that are simultaneously present within corporations. He argues that integrity in a globalized world requires cosmopolitan communication and describes the different strategies required for moving from the other forms of communication to cosmopolitan: to move beyond monocultural communication, promote curiosity; to become free of ethnocentric communication, imagine more resources (permitting an ethic of abundance rather than an ethic of scarcity); to reform modernistic practices, discover boundaries (p. 30). Oliver's work focuses on cosmopolitan communication itself, particularly Pearce's notion of "social eloquence" which she extended in the concept of "systemic eloquence" (Oliver, 1996). Bringing this together with the CMM concept of the strange loop as well as with other ideas, she has developed "reflexive inquiry" (Oliver, this issue).

Public communication research

Narula and Pearce (1986) explored the national development process in India from a communication perspective. Using textual analysis and interviews, they developed descriptions of the social realities of and the interactions among three key stakeholders in the development process: development planners, change agents, and the masses (represented by a village and the population of a conurbation center). The analysis explained why Indians were saying, simultaneously, that "we've never had it so good" and "we've never been so frustrated." Narula and Pearce found that the communication system set up by the planners and development bureaucracy had produced an unintended "learned dependency" on government as "provider" of resources for development. Displaying CMM's potential for critique as well as description, they concluded that "more of the same" would only strengthen the unwanted pattern and recommended a dialogue action strategy.

Focusing on the asymmetry between the "stories lived" by interacting groups and the "stories told" by each of those groups, Mess and Pearce (1986) studied the politics of race and religion in Malaysia. Using textual analysis and a thick description of specific events, they offered explanations of the popularity of the Dakwah movement (which sought "purity in religion and clarity in politics"). Again combining critique and description, they suggested that multicultural Malaysian society and government was able to achieve coordination because of deliberate vagueness and ambiguities in certain cultural meanings and practices, and that a systematic attempt toward "purity and clarity" would engender political crisis.

The question of how social change is possible gave rise to a rich research tradition. In the mid-1980s, Lloyd Bitzer's concept of the "rhetorical situation" was the most prominent approach to rhetorical criticism. In this view, rhetorical situations generate "exigencies" (similar to CMM's concept of contextual and prefigurative forces) that comprise the context into which a rhetor must act. Drawing on CMM concepts of logical force (in which there is a ratio between contextual/ prefigurative and practical/implicative forces) as well as the notion of a hierarchy of contexts (some of which might be in a looped relationship), Branham and Pearce (1985) sought to enrich
the conceptual basis for assessing the possibilities for action in situations in which the purpose of the actor does not fit within the exigencies of the situation. Reviewing a number of specific cases, they identified four strategies that rhetors use to manage conflicts between texts and context: (1) conformity, (2) non-participation, (3) desecration, and (4) contextual reconstruction. In the most radical strategy, contextual reconstruction, the act generates sufficient implicative force to change the context in which it occurs. The concept of contextual reconstruction enabled a rich explanation of what was going on in two otherwise difficult-to-understand communication events: Edward Kennedy’s “Television Statement to the People of Massachusetts” (explaining his questionable actions following the death of a member of his staff) and Abraham Lincoln’s “Gettysburg Address” (which became something far more important than the anticipated gloating after a decisive victory in the American civil war). Using the same concept, Branham (1989) found that Susan Sontag tried but failed to reconstruct the context in her controversial “Town Hall Address.” In the unreconstructed context, her purpose was misunderstood; interpreted as a confession of her conversion to the political right rather than a radical call for the political left to embrace "patriotism" rather than concede it to the political right.

Contextual reconstruction can be brought about in many ways. The analysis of Edward Kennedy's speech at Liberty Baptist College ("On Tolerance and Truth") focused on self-reference. The content of the speech was primarily a reflection on itself as occurring, and offered itself as proof of the claim that it was making: that a more civil tone in the discourse between political opponents was possible (Branham & Pearce, 1987). Deliberate manipulation of person-positions featured in the analysis of how Soviet Premier Gorbachev ambushed American President Reagan in the non-summit meeting at Reykjavik (Pearce, Johnson, & Branham, 1992). As Gorbachev but not Reagan realized, Reagan's foreign policy rhetoric presupposed the "other" in a third person position, and was inappropriate and ineffective when speaking face-to-face to the purported leader of what he had called the "Evil Empire." In the awkwardness of the shift from treating Gorbachev as third person caricature to second person interlocutor, Reagan abandoned the position that he and the NATO allies had agreed upon. A survey of the emerging "conversational style" in American public discourse found that speakers reconstruct contexts by taking person-positions and by assigning them to their various audiences, creating logics of meaning and action conducive to their purposes (Branham & Pearce, 1996). For example, while at the White House to accept an award, Elie Weisel turned his back on the others in the room and addressed President Reagan directly (as a second-person, with an obligation to respond) as the audience in his appeal for Reagan not to include a visit to a Nazi cemetery in his official visit to Europe.

Observing that public discourse contains sustained URPs stimulated the study of interaction between the New Religious Right and those that they called "secular humanists." Using a combination of case studies of specific events such as a single speech (Branham & Pearce, 1987) and textual/historical analyses of sustained interaction over decades (Pearce, Littlejohn, & Alexander, 1987; Pearce, Littlejohn, & Alexander, 1989; Freeman, Littlejohn & Pearce, 1992), these studies developed explanations of the patterns of reciprocated diatribe, misunderstandings,
and inability to conduct public policy in a civil manner that has characterized American politics for the past twenty years. Building on this research, Freeman, Littlejohn and Pearce (1992) and Pearce and Littlejohn (1997) developed the concept of moral conflict that occurs when the social realities of the participants are incommensurate. Among the results of this concept is the ability to understand how even reasonable people unintentionally produce patterns of interactions that are unreasonable and ill-tempered discussions and policies. Littlejohn's (in press) report of his Transcendent Communication Project three case studies of interventions in such problematic forms of public discourse.

Without naming them, Pearce and Chen (1989) used the hierarchy model and the serpentine model to explore the similarities and differences in the writings of ethnographers Clifford Geertz and James Clifford. The same concepts lay behind Weiler and Pearce's (1992) description of the "rhetorical ecology" of the Reagan Administration. The serpentine model and the notions of rules and logical force gave structure to Pearce's (1985) history of the speech communication discipline in the 20th century.

Therapy and consultation
CMM's involvement with family therapy began in the early 1980s when Karl Tomm found that Cronen, Johnson, and Lannamann's (1982) work on strange and charmed loops provided him a new way for understanding paradoxical patterns within human systems. A multi-decade association between researchers and practitioners followed, from which relatively few stand-alone studies emerged. Among these studies were a case study, a study using direct observation and a focus group, and an interpretive retrospective essay.

Cronen, Pearce, and Tomm (1985) sought to understand the dramatic effectiveness of a therapeutic intervention in a family with a long history of fighting. Through an interpretive analysis of the videotape recording of the sessions and collaborative analysis with the therapist, they found that the therapist modeled a form of behavior that challenged the validity of one of the most important rules in the family. This precipitated what they described as a reconfiguration of the hierarchical relationship among the family's stories, and thus the strength and content of the contextual force for their actions. In CMM terms, the story at the highest level of the hierarchy exchanged places with what had been a lower-level story.

Noting that various people were described as "not sufficiently systemic," Pearce, Villar and McAdam (1992) conducted what they called an exercise in curiosity. The phrase is puzzling because the rhetoric of the community of systemic practitioners denies any sort of metric for judging sufficiency. Focusing on the use of the term within the community, and without assuming that it had referential meaning, they combined direct observation with a focus group to describe the conditions in which the phrase is used and how it functions. The results provided an interesting analysis of the relationships within the community of systemic practitioners.

Cronen and Pearce's (1985) analysis of "How the Milan Method Works" is a summary of years of intensive observation of and conversation with therapists. This is perhaps the most striking example of a chapter that should have been a full-length book, with more complete descriptions
of some of the hundreds of case observations on which it was based.

Within the systemic therapy community, CMM has been viewed as a useful resource for understanding and elaborating systemic practice (Tomm, 1988). For example, CMM concepts such as stories lived and told, coordination, the recursive relationships among levels of the hierarchy of meaning, and constitutive and regulative are commonly used to augment systemic practitioner’s thinking about mapping client stories (Hedges & Lang, 1993), creating systemic stories (Lang & McAdam, 1995), structuring inquiry (Cronen & Lang, 1994), power (Egan, 1992), neutrality (Glaser, 1991), violence (Hannah & McAdam, 1991; McAdam & Hannah, 1991), the social construction of the family (Lindsey, 1993), self reflexivity (Jones, 1995), and the relationships among the approaches, methods, and techniques used by therapists in their practice (Burnham, 1992). The concept that forms of communication are at least as important as their content has not, with significant exceptions such as Comunian and Mocsoni (1999) and Oliver (1992, 1996, this issue), been a central feature in what therapists and consultants have found useful in CMM.

Therapists and consultants have found that CMM can be used to help clients articulate the stories they live and restory their experience so that they can move forward. CMM’s hierarchy model of meaning and the daisy model of the network of conversations is frequently used as a tool to help structure systemic questions (Hannah, 1994), generate alternative stories about individuals and groups (Hannah, 1994; Oliver, 1996), and to sort out how people order stories to interpret events (Lewis, 1993, Lewis & Kavanagh, 1995). Therapists frequently construct strange loop diagrams to explore the dilemmas and paradoxes both clients’ (Hannah, 1994; Oliver, 1996) and therapists’ experience (Sluckin, 2000). Oliver (1996) used CMM to develop the notion of systemic eloquence as a means for highlighting how therapists can work in ways to articulate the moral orders used by clients. Pearce and Pearce (1998) developed the LUUUTT model enabling therapists and others to produce thicker descriptions of their client’s grammar by exploring the stories lived, untold stories, unheard stories, unknown stories, stories told, and manner of storytelling.

Conflict, mediation, and dialogue
In the mid-1980s at the University of Massachusetts, a number of scholars and mediators joined to explore the discourse of mediators from a CMM perspective. The research design was an iterated cycle in which scholars observed a mediation (either through a one-way mirror or in a videotape), analyzed the interaction among disputants and mediators, presented their findings to the mediators (both those involved in the mediation and others in the program), and joined with the mediators as they discussed what, if anything, they would change in their practice as a result. Most of this research remained in the form of oral presentations and notes during this multi-year collaborative project, but some was published.

Cobb and Rifkin (1991) noted that much of the ethos of mediation depended on the ability of the mediators to be neutral with respect to the disputants, allowing all voices and perspectives to be heard equally. However, their close analysis of the texts of mediations showed that the
narrative offered by the first disputant to speak served as the basis for the final settlement over 80% of the time. They concluded, "the second speaker never is able to tell a story that is not colonized by the first or dominant story" (p. 61), and argued that mediators must actively generate alternative stories if they are to achieve neutrality in practice. Continuing her concern for mediator neutrality, Cobb (1994) showed that mediators have an affinity for the more well developed and coherent narratives presented by disputants, leading them to form tacit coalitions with those more capable of expressing themselves.

Millen (1992) developed a narrative mapping technique to display the dynamic of the interaction, and used this data to explore how blame is constructed in mediation sessions. His findings led him to suggest the importance of differentiating between locating blame in individuals and in relationships, and called on mediators to develop relational narratives for any attempts to attribute blame.

Summarizing a series of case studies, Littlejohn, Shailor, and Pearce (1994) studied the moral order of the mediators and of the disputants with whom they worked. They found that the mediators worked to call into being deliberations characterized by "instrumental rationality." However, only some disputants were willing or capable of operating with this rationality; many had quite different notions of conflict and of justice. As a result, the practice of mediation was for some, but not all, disputants an invitation to engage in episodic sequences that are alien to their logic for meaning and action. One result was to portray some mediations as asymmetrical intercultural communication events; another was to note an inadvertent coalition between the mediators and those disputants who were capable of engaging in instrumental rationality.

The three case studies of mediation in Shailor's (1994) book are the most detailed available. In addition, the Appendix includes a CMM analysis of the training manual used by the UMass Mediation Project. These studies showed that mediators who use the "problem-solving approach" of instrumental rationality sometimes perpetuate and even amplify the conflicts in which they are trying to intervene. On the other hand, mediators who conceptualize the disputants as seeking coherence and coordination on a number of levels (following the CMM hierarchy model) can help them successfully renegotiate understandings of self, other, and situation as well as reach agreements about the issues that brought them into mediation. After aligning with Bush and Folger's (1994) "transformative mediation," Shailor (1999) emphasized the significance of taking a communication perspective and introduced (in addition to Bush and Folger's, 1994, nomination of "empowerment" and "recognition") "awareness" as the third goal of mediation. Awareness is "the ability of each individual to enlarge the scope of their understanding by discovering new information, making new connections, and developing new ways of perceiving and working with their situation" (p. 75). Shailor has applied these ideas by developing the Program on Conflict Analysis and Resolution at the University of Wisconsin at Parkside.

The Kaleidoscope Project at the University of Massachusetts in the mid-1980s was a process for bringing together spokespersons for opposing sides of controversial issues in a public meeting designed to help them "discuss the undiscussable." The project was renewed in the mid-1990s and used to improve the quality of public discussion of controversial issues at De Anza College
and San Jose State University, using in a public setting techniques familiar to systemic family therapists such as entering, working with, and elaborating individual’s grammars of action through systemic questioning and reflecting teams. Although this was primarily a form of practice in service to the goal of making better social worlds, Kaleidoscope always included a research component. At the University of Massachusetts, a formal "tinkering committee" analyzed each Kaleidoscope event, assessed what worked and what did not, and "tinkered" with the design for the next event. In California, the group did close analysis of videotapes of the events, testing their perceptions of what worked and what did not through role-plays and thick descriptions of selected segments of the interaction. Two members of the California group, Spano and Calcagno (1996), did close textual analysis of a Kaleidoscope session about diversity/affirmative action. Describing the "grammars" (in Wittgenstein's sense of the term) of the participants and the systemic interventions by the interviewer and by the reflecting team, they were able to assess whether these interventions resulted in changing the grammars of either or both participants. They found that the interventions were successful in inviting the participants to acknowledge and explore alternative grammars about the topic, but that neither participant made significant changes in their grammar of action.

Based on their critiques of the Kaleidoscope process (that it was a one-session intervention, starting rather late in the development of a conflict and limited to college campuses), this group generalized their interest to "public dialogue" and expanded their work to whole communities. The most complete study of this process is Spano (2001), whose book includes a general history of the project, close analysis of specific events with particular attention to crucial moments, and commentaries on the Project by a team of external observers including both practitioners and scholars. In addition, Pearce and Pearce (2000a) reflected on the reflexive loop in which the Cupertino Community Project has generated experiences that have continued the development of the theory that initially informed it. The concepts of coordination, forms of communication, episode, logical forces, person position, and contextual reconstruction have been enriched. For example, when applied to a multi-year, community wide project, the notion of "episode" is usefully elaborated beyond bounded sequences of speech acts with a beginning, middle, and end to also include strategic process design, event design, and communication facilitation skills. Part of the Cupertino project involved teaching dialogue skills in the local schools. Pearce and Pearce (2001) showed how the serpentine model and the communication perspective offered by CMM can help students learn to talk about important issues in a pluralistic world in meaningful ways. The Cupertino project has attracted attention from other community builders and researchers and is beginning to be replicated in other sites (Dillon & Galanes, 2002; Adams, et al., this issue).

The notion of dialogue itself has been studied in the course of this and other projects conducted by the Public Dialogue Consortium. In one of the few analyses of the texts of dialogic communication, Pearce and Pearce (2000b) distinguished among several concepts of dialogue, and characterized the role of facilitating dialogue as deliberately maintaining a charmed loop among self, other and episode. In addition, Littlejohn (in press) has developed The Transcendent Communication Project as a structure for exploring the ways in which dysfunctional communication patterns
can be replaced by better ones. Barge and Little (2002) have focused on the process of choice making within emerging patterns of communication and offered the notion of dialogical wisdom as a way that individuals can make wise choices regarding how to position their voice in relation to others during dialogue.

Methods and designs in CMM research

CMM is not a research method; it is better understood as a worldview and open-ended set of concepts and models articulating that worldview and supporting engagement with the events and objects of the social world. While some research methods and research designs have a greater affinity with this worldview, there is no reason why any research method could not be used in CMM research. Research methods reviewed here include direct observation, questionnaires, interviews, rhetorical criticism, historical analysis, focus groups, and textual/discourse analysis. Research designs include experiments, surveys, case studies, and collaborative action projects.

That having been said, CMM has evolved and with it the predominant forms of research. Its evolution can be charted in several ways: from purely academic to thoroughly integrated in various sorts of practice; from scientific to social constructionist/pragmatic; and from explanatory/predictive to a practical theory. Any easy story about this evolution distorts by making it seem more coherent than a closer look would reveal. With that risk clearly in mind, one description is that CMM began as an interpretive social science (this phase ended with the publication of Pearce and Cronen, 1980), developed a critical edge during the 1980s (see Cronen, Chen and Pearce, 1989, and Chen, this issue), and currently expresses itself as a "practical theory" (see Barge, this issue). Paralleling this evolution, the predominant research methods have changed from quantitative experiments, surveys and case studies to hermeneutic case studies and various forms of textual, narrative, and discourse analysis. A similar and equally important change has occurred in the person-position of the researcher, from a third-person observer to (also) a second-person collaborator and/or first person participant, often in long-term, collaborative projects.

Although there has been some published reflection on research methods (Narula & Pearce, 1990; Pearce, 1993; Chen & Pearce, 1995), most of this work remains unpublished, as in dittoed class handouts about "Fifty ways to measure your episodes" dating from the 1970s and in multi-day seminars on research methods in the 1990s. Particularly since new methods of textual, narrative and discourse analysis are being developed that offer CMM researchers ready-made tools that are more consistent with their perspective than have been previously available, and the research community generally is becoming more sophisticated about collaborative, participatory and action research designs, this is a promising area for additional work.

Final thoughts

While the present paper is the first reconnaissance of published CMM research, we hope it will not be the last. This reconnaissance is limited to published research, neglecting many studies – particularly doctoral dissertations – that have contributed to this literature. Published papers that should have been included have likely, inadvertently, been omitted. We found no "best" way
of organizing this review; the one we chose serves some purposes but not others, and reveals how hard it is to put CMM research into discrete categories.

Even with these limitations, our review of CMM research has found that there is more of it, as well as a greater variety of it, than we expected and that it gives sufficient empirical basis for confidence that CMM's concepts and models are viable ways of engaging our social worlds. We speak carefully here, because no one would assert that CMM's viability is exclusive; any number of philosophies can lead one into productive engagement with the social world. However, this research literature provides a reasonable basis for confidence for those who use CMM as the worldview in which to conduct further research, to craft their professional practice, and to act boldly into the situations in which they live.

There is also a sense of unrealized potential due to missed opportunities, under-reported research, and prematurely abandoned research programs. Some of the prolonged collaborative research projects (such as the studies of mediation and the long association with systemic family therapy) should have produced a library shelf full of books similar to Shailor's (1994), Pearce and Littlejohn's (1997), and Spano's (2001). Many significant studies remain as unpublished Masters' or Ph.D. dissertations that should be more accessible, as is Jia's (2001) book, to the community of scholars and practitioners using CMM. There is plenty of opportunity to do more CMM research, and to publish more of what has already been done.

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