

# TOPICAL PROFILING Emergent, Co-Occurring, and Relationally Defining Topics in Talk

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*This research profiles the topics of everyday talk, pinpointing topical patterns that are emergent, co-occurring, and relationally defining. Participants reported topics of their conversations with particular types of people (e.g., parents, significant others, bosses, professors, service people, etc.). The most commonly emerging topics were those most central to participants' lives and that helped them "check in" with (i.e., update) and "check out" from (i.e., depart) others. Topics co-occurred to carry out conversational routines (e.g., starting and ending), fulfill communicative functions (e.g., informing), and achieve interpersonal agendas (e.g., comforting). Topics differed in their absolute prospects of arising within particular relational types and in their relative prospects of arising across relational types. The relational type was predictable more than 45% of the time by knowing only which topics occurred (and which did not). The profile of people's topical talk is one of patterns in the topics that arise in their lives, that co-occur in their conversations, and that define their relationships.*

**Keywords:** *conversation; topics; topic; topical talk; relational types; relational development*

Topics arise in talk nonrandomly; their occurrence is managed and their management is consequential (Hinkel, 1994; Kuder & Bryen, 1993; Mentis, 1994; Schneider, 1988). Topics of talk profoundly structure people's conversations (McLaughlin, 1984; Parker, 1985), perceptions (Bedrosian, 1993; Brinton, Fujiki, & Powell, 1997; Sargent, 2002), relationships (Crow, 1983; Kuder & Bryen, 1993), and memories (Kellermann, 1995).

Despite the importance of topics to conversation, a general profile of the topics of everyday talk does not exist, little is known about how topics connect and co-occur with each other, and a theoretical belief that

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topical talk distinguishes one relationship from another remains surprisingly untested. We have only incomplete, limited, and sometimes outright unusually situated listings of what people talk about with particular others (Marvin, Beukelman, Brockhaus, & Kast, 1994). Because we almost exclusively analyze topics in these listings individually, all we know about specific topical associations is that in conversations between strangers becoming acquainted, certain topical groups of talk exist (Kellermann, 1995). Although we believe topical talk reveals our relational identities, we know through empirical test only that people can predict the gender of conversationalists between same-sex friends using topics (Martin, 1997). This research fills these empirical and theoretical gaps by profiling the topics of our everyday talk, identifying topics that co-occur across our conversations, and assessing how well topical talk reveals and predicts our relationships with others.

### CONCEPTUAL APPROACH

Two key choices give direction to this (and other topical talk) research: The definition of a conversational topic and the theoretical framework guiding the research. For reasons we discuss, we approach the concept of a conversational topic as the content people talk about at the discourse level and adopt, consistent with this approach, a cognitive framework privileging participants' understandings of conversational topics.

*Topic definition.* Researchers approach the notion of conversational topic from differing *perspectives* (how we structure talk versus what we talk about), analysis *units* (sentence versus discourse level), and *referents* (content/ideas versus expression/particular constructions; Goutsos, 1997). In the research literature, topics are more often studied at the sentential unit of analysis than at the discourse level (Goutsos, 1997; Reinhart, 1981), and from the perspective of how topical talk is initiated, shifted, maintained, reintroduced, and inhibited (i.e., structured) than what people talk about.<sup>1</sup> We find these tendencies informative, though ultimately limiting as everyday conversationalists rarely approach the notion of a conversational topic from sentential or structural viewpoints; rather, people understand topics as the content of what they talk about at the discourse level (Goutsos, 1997; Orletti, 1989). This "about-content-discourse" approach to topic is a "recognizable unit" to people (Goutsos, 1997), unproblematic in its request and determination (Cegala et al., 1989; Martin, 1997; Tannen, 1984). Because the hypotheses we seek to test concern how participants understand their topical talk, we approach a conversational topic as the *content* (versus expression) of *what* people talk about (ver-

sus how) at the *discourse* (versus sentence) level, and by doing so, round out our empirical and theoretical understanding of topical talk.

*Theoretic framework.* We adopt a cognitive approach to topical profiling because cognitive theories generally privilege participants' understandings (Nofsinger, 1990) and are capable of abstracting content equivalent to a discourse level (Fiske & Taylor, 1991; Higgins, Herman, & Zanna, 1981; Lachman, Lachman, & Butterfield, 1979). However, relatively few cognitive theories examine conversational topics (see, for exceptions, Grosz & Sidner, 1986; Kellermann, 1995; Kintsch & van Dijk, 1978; Reichman, 1978), and fewer still focus on the content of what people talk about at the discourse level.

Kellermann (1995) and associates provide a beginning point for our topical profiling in that their research on a conversation Memory Organization Packet (MOP) between strangers finds that *scenes*, the basic building blocks of memory, correspond with *topics*—approached as the *content* of *what* people talk about at the *discourse* level (Kellermann, 1991, 1995; Kellermann, Broetzmann, Lim, & Kitao, 1989; Kellermann & Lim, 1989, 1990). The MOP perspective is consistent with the approach taken here as it focuses on social actors' topical understandings of conversations and suggests that topical profiles exist, that certain topics co-occur across conversations, and that topical talk expresses relational identities (Kellermann, 1995).

The MOP framework can only serve as a loose guide for this research, however, in that it is silent with respect to specific expectations. This framework offers detailed guidance as to the nature of topical profiles only for strangers becoming acquainted (see, e.g., Kellermann, 1995). The MOP perspective offers few expectations as to which specific topics might co-occur or why, as only 24 of the 55 topics in conversations between strangers were examined for co-occurrence (Kellermann et al., 1989). The MOP framework posits explicitly that conversations among different relational types likely alter the topical profile, though offers no specifics on the nature of any differences. This research extends the MOP perspective by offering a *general* profile of the topics of our everyday talk, *broadly* exploring how and why topics connect and co-occur with each other across a wide range of conversations, and directly *testing* the theoretical belief that topical talk distinguishes one relationship from another.

## TOPICAL EMERGENCE

What do people talk about in their conversations with others? Theoretically, the list of topics people talk about could be as extensive as the card catalog of a library; pragmatically, people limit their talk to particular topics.<sup>2</sup> We use as our starting point for our topical profile the

topics of talk in conversations between strangers in the conversation MOP, as these topics are well-verified both cognitively (as scenes in the MOP) and conversationally (as occurrences in interactions) in relatively large samples (Kellermann et al., 1989).

The literature on topics comprising our everyday talk with non-strangers is both extensive and spotty, relying frequently on small samples (e.g., 3-10 people), unique participants (e.g., children, developmentally disabled), limited partners (e.g., parent-child, child-child, disabled-staff), special settings (e.g., institutions, cars, playrooms), topics provided by researchers, extreme units of analysis (i.e., noun phrases/sentences or broad themes of talk; e.g., social talk, task talk), and a primary interest in gender. Nonetheless, we expect at least some of these additionally identified topics in nonstranger conversations to arise in this research, as our focus is also on nonstranger conversations. Additional topics to the MOP occur in conversations between persons who are *acquainted* (e.g., dancing, money, social clubs, sex, transportation, animals, art, dreams, war, peace, nature, marriage, emotions, love), *children* (e.g., animals, playthings, fantasy talk, nature, holidays), *teenagers* (e.g., beliefs, sex), *elderly* (e.g., emotions, money, household routines, beliefs), *grandparents* (e.g., current events, death, leisure, scheduling), *men* (e.g., transportation, money, sex), *women* (e.g., needs/feelings, fears, gifts), *staff members* (e.g., command, advise), and *different cultures* (e.g., sex, marriage/divorce, fights, money, life in the United States). We expect topics in the informal, initial conversation MOP to arise, and to be supplemented with topics not traditionally arising among strangers.

### TOPICAL CO-OCCURRENCE

People select particular topics on which to talk. We test whether structure exists in people's topical selection by examining whether certain topics co-occur (i.e., regularly arise together) across conversations. Consistent with the MOP framework, we believe that multiple, meaningful sets of topics of talk exist, and these sets of co-occurring topics facilitate the carrying out of conversational routines, communicative functions, and interpersonal agendas.

First, we expect certain topics co-occur because they are part of routines people use to manage conversation (Clarke & Argyle, 1982; Coulmas, 1981; Wardhaugh, 1985). For example, needed in every conversation are means for starting and stopping talk, leading Turner and Cullingford (1989) to argue that greetings ("hi") and partings ("bye") are mandatory (as opposed to optional) scenes in a conversation MOP. Getting from greeting to goodbye in the conversation MOP, however, also requires progression through subsets of other appropriate topics (Kellermann, 1995), some whose purpose is, we feel, to power-up and

wind-down conversations. In the conversation MOP, the topical subset following greetings contains only the topics of introduction and health inquiry ("how are you?"). The introduction topic is appropriate only to strangers, so we expect a health inquiry more frequently powers up conversations with others, and is most likely to co-occur with greetings. In the conversation MOP, the topical subset just prior to goodbyes instigates conversation termination through positive evaluation of the encounter and person, talk of and/or planning for a possible future meeting, and until later. Of these termination phase instigation topics, the until later topic seems the most cross-conversationally functional as it neither commits people to future encounters nor is inconsistent with encounters that might be discussed and planned. We expect to identify a "minimalist" conversational routine comprised of greeting, health inquiry, until later, and good-bye ("Hi. How are you? See you later. Bye."), and on which other sets of co-occurring topics can expand, should persons choose to do so.

Second, we expect certain topics co-occur in conversations because they fulfill required conversation functions. People expect themselves and others to bring up topics that are informative, that involve news that is mentionable and reportable (Button & Casey, 1985; Labov, 1972; Sacks, 1992; Svennevig, 1999). Maynard and Zimmerman (1984) argue that people distinguish "setting" topics (e.g., weather, present situation) and "personal" topics (e.g., education, work, goals/intentions, family), and inform each other on both types of matters (though not necessarily in the same conversations), giving rise to different sets of topics that likely co-occur. We note that personal topics are many and varied and that persons might differentially update others on particular sets of co-occurring personal topics (e.g., activities vs. mental condition vs. physical condition vs. immediate concerns vs. relationships). With that caveat, we expect both setting and personal topics to co-occur in conversations (within their own topical sets), where each might be used to expand on the "minimalist" conversation routine.

Finally, we expect certain topics co-occur because they serve interpersonal agendas, fulfilling particular needs and/or permitting achievement of particular goals. De Beaugrande (1992) argued that topics, even when part of small talk, are an "ongoing docket of actions, needs, motives and goals" (p. 246). People randomly brought together to talk struggled until they identified needs to fulfill and/or goals to achieve (Wardhaugh, 1985). Clark (1998) offered a detailed analysis of the topics and objectives of undergraduates' conversations with same-sex friends and acquaintances, though stopped short of identifying topics that regularly co-occur with particular objectives, noting only that "topics and objectives appear intertwined" (p. 305). Among other objectives, undergraduates reported giving advice, comforting, getting to know each other, and gaining compliance when conversing with

friends and acquaintances (Clark, 1998). These four objectives often involved the making of requests (i.e., asking for help, favors or information) and the offering of services, resources, or information (Daly & Wiemann, 1994), and so we expect topics asking for help/favors, giving advice, and offering services/solutions to co-occur in conversation. Comforting involves talk about people's worries, fears, concerns, emotions and mental state (Burlinson & Goldsmith, 1998), and so these topics also might co-occur. We expect people structure their conversation around specific *sets* of topics that are meaningfully related to conversational routines, communicative functions, and interpersonal agendas.

### TOPICAL INVENTORIES

We believe topics reflect and define our relationships with other people; that we talk on, and avoid talking on, different topics with people who stand in different relationships to us. In what follows, we argue: (a) People perceive their relationships, not just individually, but also according to type (e.g., acquaintance, boss, etc.); (b) people speak on different topics in different relational types; and (c) the topics that both arise and are absent in specific conversations permit accurate prediction of the conversationalists' relational type. We focus not on the individual topic, but on the topical list. We obtain relationally defined *topical inventories* to explore patterns in our topical talk with other people and determine which relational types are most and least similar in their topical inventories. We test whether knowing only which topics arise and which do not in a specific conversation we can predict the type of relationship that exists between the persons in that conversation.

*Relational types.* People identify their relationships as falling into particular "types"—for example, parent, significant other, coworker, professor, service person—and easily identify attributes that are both common to, and distinguish, the various types (Marwell & Hage, 1970; Wilmot & Baxter, 1989; Wish, Deutsch, & Kaplan, 1976). Just as relationships differ in persons' relative power, distance, and task-orientation (P. Brown & Levinson, 1987; Burgoon & Hale, 1987; Spencer-Oatey, 1996; Stiles, 1980), so do relational types (Knapp, Ellis, & Williams, 1980; Wish et al., 1976). For example, professors, bosses, and parents typically have more power than very close friends, significant others, and coworkers (Wish et al., 1976). The range of intimacy is spanned by significant others, very close friends, siblings, parents, grandparents, acquaintances, bosses, and coworkers, with significant others among the most intimate and acquaintances, bosses, and coworkers among the least intimate (Knapp et al., 1980). Our relation-

ships are more task-oriented with bosses, coworkers, counselors, and professors than with young children, siblings, and very close friends (Wish et al., 1976). Although relational types are imprecise in their boundaries, not mutually exclusive, and contain variance (Dillard, Solomon, & Palmer, 1999; Wilmot, 1995), they are important organizing devices that people find meaningful and use to describe others with whom they interact. People perceive their relationships, just not individually, but also according to type.

*Topics of talk and relational types.* People signal their relational types communicatively, using topic as a major resource (Maynard & Zimmerman, 1984; Wilmot, 1995). Certain topics are considered appropriate for particular relational types, though the set of appropriate topics varies (de Beaugrande, 1992; Wardhaugh, 1985). People talk on *traditional*, *functional*, and *interactional* topics; traditional topics are learned through socialization as appropriate for particular interactions, functional topics focus on what conversationalists are doing or trying to do (i.e., the task), and interactional topics are open to negotiation (Parker, 1985). People select topics to talk on that are of interest to—and show interest in—the persons with whom they talk (Brinton et al., 1997; Clark, 1998) and that reflect both the traditions and functions (i.e., task orientation) of their relationship (Coulthard, 1985; Parker, 1985). People also select topics that reflect the intimacy of their relationships with others (Cegala et al., 1989; Crow, 1983; Tracy, 1985) and exert social power through topic manipulation (Brinton et al., 1997; Öhlschlegel & Piontkowski, 1997; Palmer, 1989). Topics of talk respond to the ways in which relational types vary (i.e., intimacy, power, and task orientation).

Different topical inventories define different relational types, both for topics people talk on and topics people avoid. Topics people most frequently talk on depend on their relationship with the person to whom they are talking. For example, to whom a child spoke affected about what a child spoke (Marvin, 1994). When speaking to a familiar person at home, young children talk about shared experiences and events, whereas when speaking at school, young children talk about the here-and-now, fantasies, or topics chosen by the teacher (Garvey, 1984; Schaffer, Hepburn, & Collis, 1983; Tattershall & Creaghead, 1985). Older children talk with friends about peer concerns (e.g., sex, drugs) in light-hearted and intimate ways, and with parents about daily or personal matters that are serious and goal-oriented (Csikszentmihalyi & Larson, 1984; Raffaelli & Duckett, 1989; Youniss & Smollar, 1985). Strangers engage in “setting” talk about the weather and present situation because doing so defines their relationship as anonymous (Maynard & Zimmerman, 1984). Topics of talk are often quite similar in conversations with acquaintances and friends, primarily focusing

on social topics, though discussions of social and personal relationships are less likely with casual acquaintances (Clark, 1998; Dunbar, Duncan, & Marriott, 1997; McCormick & McCormick, 1992). Friends frequently talk about persons of the opposite sex, coworkers most frequently discuss work, and family members most often talk about family (Haas & Sherman, 1982). Conversations with bosses and medical doctors typically reflect each relationship type's power differential through the making of requests, offers of help, and a "special" cordiality (Erickson & Rittenberg, 1987; Gavrusseva, 1995). Common topics of talk differ across relationship types.

Topics that people avoid also differ across relationship types. Certain topics are not relevant for particular relational types (e.g., introductions with very close friends) or are not newsworthy, appropriate, polite, or otherwise suitable (Hinkel, 1994; Svennevig, 1999; Wardhaugh, 1985). Topics often avoided in social relationships pertain to relationship issues, negative life experiences, dating experiences, friendships, and sexual experiences, though persons dating avoid discussion of opposite-sex friendships and prior dating relationships more often than friends (e.g., Afifi & Burgoon, 1998; Baxter & Wilmot, 1985; Guerrero & Afifi, 1995). Relational types differ in which topics are likely, and which unlikely, to arise in conversation.

*Predicting relational type.* If relational types differ in their topical inventories, then topics that arise and are absent in specific conversations might permit prediction of the conversationalists' relational type. Maynard and Zimmerman (1984) offered a strong argument that the topics on which people talk display whether their relationship is that of strangers or close friends. The only study of which we are aware that examines the use of topic to predict the nature of the conversationalists' relationship focuses on predicting the gender of conversationalists who are same-sex friends. Martin (1997) gave participants transcripts of conversations between same-sex friends and asked them to distinguish female friendships from male friendships. Overwhelmingly, participants in Martin's research reported relying on topics of talk to make their determinations of gender, with topics such as relationships, clothing, and shopping identifying female friends, and sports, drinking, and fighting identifying male friends. We expect topics of talk to be relationally defined and relationally defining.

## METHOD

We elicited topics of talk in conversations with 13 different relational types to investigate topics that emerge, co-occur, and define relationships.

## PARTICIPANTS

Participants were 274 undergraduates (age:  $M = 21$ , range = 15 to 50) at a large, public university, who received course credit for their participation.

## RELATIONSHIP TYPES

We examined topical inventories for 13 different relationship types. Based on the previously reviewed research, we first chose 12 relationships known to vary in intimacy and task orientation: significant others, very close friends, siblings, parents, grandparents, acquaintances, counselors-therapists-religious advisers, medical doctors, coworkers, professors, bosses, and service people (Knapp et al., 1980; Wish et al., 1976). Although certain power differences are inherent to these 12 relational types, we added young children (less than 12 years old who are not participants' siblings) as a relational type to ensure participants had significantly more relational power in at least one relationship we topically profiled.

We conducted a pilot study to verify that these 13 relational types differed from each other. A total of 63 individuals rated the emotional closeness (1 = *not at all*, 7 = *very*), relative power (1 = *much less*, 4 = *equal*, 7 = *much more*), and task-oriented nature (1 = *not at all*, 7 = *very*) of each of the 13 relational types, the means for which are reported in Table 1. The 13 relational types differed significantly from each other in their emotional closeness, relative power, and task orientation. We concluded these 13 relational types differed sufficiently from each other for topical profiling.<sup>3</sup>

## PROCEDURE

Participants were given surveys asking them to list topics in conversations they had recently had. An instruction page told participants that the research looked at topics of everyday conversation, that is, "what you focus on; the matters you talk about; the issues, ideas or things you discuss; and the points on which your conversation centers" (consistent with our focus on the *content* of *what* people talk about at the *discourse* level). To encourage a complete recounting of topics, participants were told to list the subject matter of their conversations with other people whether "trivial or important, brief or drawn out, common or infrequent, meaningful or meaningless, relevant or beside the point, appropriate or out of place, serious or lighthearted, routine or surprising, familiar or unknown;" that the subject matter of everything they and other people talked about was of interest, even if a topic was mentioned only briefly.

Table 1  
*Mean Characteristics of Relational Types*

Relational Type	Emotional Closeness	Relative Power	Task Orientation
Service people	1.35 <sup>a</sup> L-	4.78 <sup>c</sup> M+	5.15 <sup>b</sup> H
Professors	2.37 <sup>b</sup> L+	2.44 <sup>a</sup> L	5.84 <sup>b</sup> H
Bosses	2.59 <sup>b</sup> L+	2.63 <sup>a</sup> L	5.98 <sup>b</sup> H
Medical doctors	2.67 <sup>b</sup> L+	2.75 <sup>a</sup> L	5.54 <sup>b</sup> H
Acquaintances	3.57 <sup>c</sup> M	4.57 <sup>c</sup> M+	3.32 <sup>a</sup> L
Coworkers	3.59 <sup>c</sup> M	4.48 <sup>c</sup> M+	5.38 <sup>b</sup> H
Counselors-therapists-priests	3.63 <sup>c</sup> M	3.41 <sup>b</sup> M-	5.10 <sup>b</sup> H
Young children	3.86 <sup>c</sup> M	5.81 <sup>d</sup> H	2.59 <sup>a</sup> L
Grandparents	5.54 <sup>d</sup> H-	3.54 <sup>b</sup> M-	2.56 <sup>a</sup> L
Siblings	6.27 <sup>e</sup> H+	4.95 <sup>c</sup> M+	2.32 <sup>a</sup> L
Parents	6.38 <sup>e</sup> H+	3.03 <sup>a</sup> L	3.13 <sup>a</sup> L
Very close friends	6.52 <sup>e</sup> H+	4.40 <sup>c</sup> M+	2.67 <sup>a</sup> L
Significant others	6.67 <sup>e</sup> H+	4.52 <sup>c</sup> M+	2.67 <sup>a</sup> L
<i>F</i> (12,732)	150.08*	53.02*	57.43*
$\eta^2$	.71	.47	.49

*Note.* Means are measured on 7-point scales (1 = *not at all*, 7 = *very for emotional closeness and task-orientation*; 1 = *much less*, 4 = *equal*, 7 = *much more for relative power*). Means with similar superscripts are not significantly different from each other and means with different superscripts are significantly different from each other based on Student-Neuman-Keuls tests. Means are identified as low (L), medium (M), and high (H) for each characteristic and modified by plus (+) and minus (-) signs to reflect these statistically differentiable groupings of relational types on each characteristic.

\* $p < .001$ .

The concept of relational types was then introduced by telling participants that the researcher was interested in topics they talked about in conversations with specific types of people (e.g., stranger, roommate, uncle, etc.).<sup>4</sup> Participants were told to think about a recent extended conversation with a particular person of each provided relational type, rather than a momentary or passing conversation, so that they could provide a richer and more extensive picture of what topics they and that individual talked about. Participants were instructed to list all topics on which they and the other person talked, from the very first to the very last thing said. Participants were asked to list only the words or phrases that described each topic, and not to provide a word-for-word recounting. For each conversation, participants also provided the month and year the conversation occurred, the length of the conversation in minutes, and both their and the other person's (as best they could) age and sex. This recall procedure provided access to a cross-section of ordinary conversations unconstrained by context (Clark, 1998).

In an effort to obtain at least one conversational report from each returned survey, participants were asked to report the topics of their talk for 2, 3, or 5 different relational types (methodically mixed so that

different combinations of relational types were on individual surveys).<sup>5</sup> The 274 participants were asked to recall a total of 681 conversations. Participants placed a check mark in an appropriate spot if they had not had an extended conversation within the past year with the type of individual specified. Participants reported not having such a conversation with a requested relational type on 170 occasions<sup>6</sup>; 11 other times, participants reported conversational background information (e.g., time), though listed no topics; and, finally, 18 participants reported not having an extended conversation with any requested relational type. Therefore, 256 participants listed topics on a total of 500 conversations. A minimum of 29 conversational reports were obtained per relational type ( $M = 38$ ).

Reports most often occurred within a few days (52%) or a month (27%) of the conversation. Recalled conversations took from 1 minute to 3 hours and averaged 23 minutes in length. The age of conversational partners ranged from 2 to 94 years old, including (as intended) those that were (a) younger such as children,  $M = 8$  years; (b) same-aged peers such as coworkers, very close friends, significant others, siblings, and acquaintances,  $M = 20$  to 24 years; (c) adults reported to be in their 30s such as service people, professors, bosses, and counselors,  $M = 30$  to 40 years; (d) an older group of adults reported to be in their later-40s such as parents and doctors,  $M = 45$  to 50 years; and (e) the oldest being grandparents,  $M = 75$  years. Approximately 57% of conversational partners were female, and 43% male; and 58% of conversational dyads were same gender, with 42% mixed gender. These data suggest the recalled conversations were recent extended conversations with the 13 different relational types, as desired.

#### TOPIC CODING

Topics were coded from conversational reports, privileging participants' understandings. Topic identification occurred at the level of abstraction provided by participants so as to obtain "basic-level" topic descriptors (Rosch, 1978). The topics validated cognitively and communicatively from participants' point of view in the conversation MOP in past research served as a useful initial topic directory for topic identification. New topics were added to the topic directory as they arose and in accord with the basic-level descriptors offered by participants.<sup>7</sup>

Topic identification was usually straightforward as most participants listed topics separately using basic-level descriptors. When topic segmentation of a conversational report was needed, topics were identified whenever the center of attention of the talk changed and in accord with basic-level descriptors provided by participants. If participants listed a main topic (i.e., a basic-level descriptor) and detailed subtopics, only the main topic was identified unless a subtopic drifted in its center of attention from the main topic. Listed topics that inter-

faced two or more basic-level descriptors were dually coded. Coders did not identify speech acts (e.g., give advice) and rituals (e.g., greetings) as topics unless participants reported them as such.

Two coders, who worked separately and then reached a joint decision, were trained to segment and assign topics using participants' basic-level topic descriptors, including recognizing the need to add new topics to the topic directory. In a pre-coding reliability check, the two coders segmented and assigned topics for 13 randomly chosen conversational reports on two different occasions (separated by other activities) and achieved 97% simultaneous agreement in segmentation and topic assignment. These two coders then segmented and assigned topic codes to all topics in all reported conversations. A postcoding reliability check on the same 13 conversations used to check reliability *a priori* achieved 94% simultaneous agreement in segmentation and topic assignment. Although a topic might have been coded as occurring multiple times in a reported conversation, only that topic's presence or absence in a conversation was ultimately noted in the database in which a total of 2,708 instances of topics were recorded.

#### DATA ANALYSIS

This research faced two data analysis problems—naturally occurring low frequency topics and more than one conversation per participant (normally two) across the 13 relational types. Removing non-independent reports would inherently increase the number of infrequently occurring topics, making one problem worse in the solving of the other. Collapsing topics into larger categories would breach the participant's point of view underlying the research and is not recommended when, as here, the categories are meaningful (Fienberg, 1980; Maxwell, 1961; Siegel & Castellan, 1988). Our approach, therefore, was to employ statistical tests that were unaffected by, adjusted for, and/or had a conservative bias when faced with these problems.

Low frequency topics are a concern in contingency tables analyzed via chi-square tests or log-linear analysis. Low frequency topics (i.e., sampling zeros) are statistically problematic in contingency tables only when they generate *expected* (and not observed) frequencies that are zero (Fienberg, 1980; Gottman & Roy, 1990; Kennedy, 1983; Knoke & Burke, 1980). Many expected frequencies can be as low as 1, or even .5, without affecting the statistical test (Cochran, 1954; Fienberg, 1980; Odoroff, 1970; Yarnold, 1970) and “the greater the number of rows and columns in a contingency table, the smaller the expected values may be for the approximation to remain good. One investigator found that for a table with 50 cells and *all* expected values less than 1, the approximation was very good” (Siegel & Castellan, 1988, p. 199).<sup>8</sup> Expected frequencies that are zero can be handled by a conservative procedure that adds .5 to each cell of the observed table (Kennedy, 1983; Knoke &

Burke, 1980) or by using pseudo-Bayes estimates (Bishop, Fienberg, & Holland, 1975). Unbiased exact methods—an exact critical ratio (CR) for the  $\chi^2$  that is a standard normal deviate ( $z$ )—can be used (rather than biased approximations) when expected frequencies are universally small and degrees of freedom greater than 30 (Bartlett, 1937; Dawson, 1954; Haldane, 1939; Maxwell, 1961). As a final check, low frequency topics can be removed and analyses reconducted to determine if the pattern of results changes. In our data, expected cell frequencies were never zero, many cells existed (i.e.,  $df > 30$ ), unbiased exact tests yielded identical outcomes, and removal of low-frequency topics had no effect on the pattern of results.

We anticipated the nonindependence problem and handled it through research design, statistical test choice, and sample partitioning. By research design, all reports *within* a relational type emanated from different participants (and so are independent); participants provided only a couple of reports (thereby limiting a participant's influence *across* relational types); and requests for reports were methodically mixed across surveys (thereby offsetting any systematic effect of nonindependence across participants). Because of this design, topical inventories—obtained by grouping data across the reports within each relational type—were independent within themselves and unable to be swayed systematically by any one participant. The percentage of times participants reported on two relational types later found to be similar in their topical inventories (3.8%) is no different than what would be expected by chance alone (7.7%,  $z = 1.69$ , ns). Furthermore, more than 94% of the reports for each of the 78 pairwise comparisons of the topical inventories—the basis for determining inventory similarity through cluster analysis—were from different participants, these correlations did not differ with pairwise removal of nonindependent reports, and cluster analyses on the “pairwise-removed” correlations yielded identical results. Research design offset the effects of nonindependence for analyses of topical inventories.

Unbiased or conservative statistical tests were used to test hypotheses of topical emergence. *Within* relational types and report partitions (where conversational reports are independent, but each topic's presence/absence creates 90 related dichotomous variables), Cochran's Q was used as an unbiased test of the equiprobability of topical emergence because it handles correlated dichotomous data (Bishop et al., 1975; Siegel & Castellan, 1988). *Across* relational types in contingency table analyses,  $\chi^2$  was used because it is conservative in the face of correlated data—that is, it rejects the null hypothesis less frequently than it should (Kennedy, 1983; Maxwell, 1961). We note this conservatism did not influence our results as the null hypothesis was always rejected in the chi-square tests.

In two instances—the overall topical profile and relational type prediction—neither research design nor statistical tests could control

or adjust for nonindependence. Because both of these instances employed the conversation (rather than the individual topic) as the unit of analysis, we were able to partition participants' conversational reports into primary and secondary samples without seriously affecting the stability of estimates. The primary sample contained 256 independent reports and had a minimum of 18 conversational reports per relational type,  $M = 20$ , whereas the secondary sample ( $n = 244$ ) had a minimum of 10 per relational type,  $M = 18$ . The overall topical profile was identical in the primary and secondary samples. For prediction of relational type from topical talk, the primary sample was used to derive classification functions whereas the secondary (or "holdout") sample was used to assess classification accuracy. Thus, we used research design, statistical tests, and sample partitioning to offset, adjust, and control for naturally occurring low frequency topics and non-independent conversational reports.

## RESULTS

We analyzed topical emergence to find out which topics arose, topical co-occurrence to determine whether topics regularly arose together, and topical inventories to test whether topical talk was relationally defined and relationally defining.

### TOPICAL EMERGENCE

Across the 500 reported conversations, we encountered 90 different topics of talk.<sup>9</sup> Participants' conversations included all but 3 topics from the conversation MOP research, supporting the validity of those scenes as conversational topics. The 3 topics not arising in conversations in this research—getting attention (part of greetings), identification (part of introductions), and familiarity reference (part of introductions)—are all part of the initiation phase of the conversation MOP, and so likely limited in their use to strangers (on whom the MOP research is based).

Not surprisingly, the 90 topics arose with differential frequency in both primary, Cochran's  $Q = 2,329.85, p < .001$ , and secondary samples, Cochran's  $Q = 2,367.86, p < .001$ , and more important, nearly identically in both,  $r = .98, p < .001$ . Only 21 topics (23%) arose frequently across conversations, only 20 topics (22%) arose moderately often, and most topics (55%) occurred relatively infrequently across conversations with these 13 relational types. The most commonly occurring topics (independent of relational type) were those most central to these participants' lives—education, work (occupation), goals/intentions, family, and personal relationships. Participants also seemed often to "check in" with others—frequently greeting, making health inquiries,

and talking about upcoming events—and “check out”—discussing possibilities for a future meeting and saying goodbye. Topics occurring least often involved specialized interests (e.g., memorabilia, animals, radio stations, death/dying, the military, fantasies, playthings) or specialized “scripts” for particular relationships (e.g., positive evaluation of other upon introduction, positive evaluation of the encounter upon ending, and special types of conversational endings, involving exchanging contact information and departure announcements). Conversational topics emerged differentially often, with those occurring most frequently related to the most central aspects of participants’ lives.

#### TOPICAL CO-OCCURRENCE

We expected topics would regularly arise together to facilitate the carrying out of conversational routines, communicative functions, and interpersonal agendas. Because this is a test of topical *co*-occurrence, we removed from the analysis 18 conversations for which participants reported only 1 topic. We then generated a  $90 \times 90$  topical co-occurrence matrix that tracked, across conversations, the extent to which each pair of topics arose together in conversation. We used Jaccard’s coefficient—which measured the proportion of times two topics co-occurred whenever one or the other occurred—because our interest was in topical co-occurrence and not co-absence. Jaccard’s coefficient ignores joint absences, and is widely used when (as here) the joint absence of some feature is unsuitable to research considerations (Romesburg, 1984). The  $90 \times 90$  co-occurrence matrix contained as its entries the number of times each pair of topics appeared together relative to either topic appearing at all.

We submitted this topical co-occurrence matrix to hierarchical cluster analysis, using the method of average linkage between groups, to identify topics that regularly arose together in conversation. Jumps and flattenings in the resultant agglomeration coefficients (Aldenderfer & Blashfield, 1984) evidenced hierarchically organized clusters of co-occurring topics at 73, 64, 48, 42, 38, 22, and 18 cluster solutions. We concentrate our discussion primarily on the 48, 38, and 22 cluster solutions (for reasons of interpretability) and focus only on clusters that contain 2 or more topics (i.e., topics that *co*-occur). Table 2 presents results from the cluster analysis, emphasizing which topics co-occurred and noting when each cluster formed and merged with other clusters.

As expected, topics co-occurred to carry out conversational routines, communicative functions, and interpersonal agendas. Conversational routines were the focus of a number of clusters of co-occurring topics. An early and stable cluster of co-occurring topics was that of the “minimalist” conversation (cluster #1), a routine that powers up and winds

Table 2  
*Topic Co-Occurrence Clusters*

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<div style="border-left: 1px solid black; border-top: 1px solid black; border-bottom: 1px solid black; padding: 5px;"> <p>1. Greetings, health inquiry, until later, wish well, good-byes          [formed in 48 cluster solution; in 22 cluster solution, grouped with # 2, 3, 4, 5, 6]</p> <p>2. Where you live, education, occupation, social relations, goals/intentions, family, personal relationships, upcoming life events, travel          [formed in 48 cluster solution; in 38 cluster solution, grouped with # 3; in 22 cluster solution, grouped with # 1, 3, 4, 5, 6]</p> <p>3. Persons known in common, social events, recent prior life events, near future activities          [formed in 48 cluster solution; in 38 cluster solution, sports is added and grouped with # 2; in 22 cluster solution, grouped with # 1, 2, 4, 5, 6]</p> <p>4. Worries/fears/concerns, emotional/mental condition          [formed in 48 cluster solution; in 38 cluster solution, grouped with # 5; in 22 cluster solution, grouped with # 1, 2, 3, 5, 6]</p> <p>5. Ask help/favor, give advice, offer services, expression of gratitude          [formed in 42 cluster solution; in 38 cluster solution, grouped with # 4; in 22 cluster solution, grouped with # 1, 2, 3, 4, 6]</p> </div>	<p>6. Possibility of future meeting, express positive regard/affection          [formed in 64 cluster solution; in 22 cluster solution, grouped with # 1, 2, 3, 4, 5]</p> <p>7. Plan a future meeting, gifts          [formed in 42 cluster solution; in 18 cluster solution, grouped with # 1, 2, 3, 4, 5, 6, 8]</p> <p>8. Status report of participant, current day's past activities, weather, food, locations          [formed in 22 cluster solution; in 18 cluster solution, grouped with # 1, 2, 3, 4, 5, 6, 7]</p> <p>9. Positive evaluation, personal compliment          [formed in 38 cluster solution; in 22 cluster solution, grouped with # 10]</p> <p>10. Present situation, complain, evaluation of encounter          [formed in 48 cluster solution; in 22 cluster solution, grouped with # 9]</p> <p>11. Age, humor          [formed in 38 cluster solution; remained in 22 cluster solution]</p> <p>12. Personal background, physical/medical condition, medical tests/procedures, medication          [formed in 64 cluster solution; remained in 22 cluster solution]</p> <p>13. Hobbies/interests, music, movies/plays, playthings          [formed in 22 cluster solution]</p> <p>14. Books/literature, hypothetical speculations, politics          [formed in 42 cluster solution; remained in 22 cluster solution]</p> <p>15. Love/marriage/divorce, beliefs/values, personal growth/development, local entertainment          [formed in 22 cluster solution]</p> <p>16. Historical life events, alcohol/drugs, sex, lifestyle          [formed in 22 cluster solution]</p> <p>17. Reason for leaving/departing, departure announcement          [formed in 22 cluster solution]</p>
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down conversations. Leave-taking was implicated in 3 other clusters of co-occurring topics (clusters #6, #7, and #17), two of which offered or planned future meetings (clusters #6 and #7) and one of which engaged strategies of conversational retreat (Kellermann, Reynolds, & Chen, 1991). Topics arose together that carried out conversational routines.

Topics also arose together that fulfilled communicative functions. "Setting" and "personal" topic clusters both surfaced. The conversational encounter (cluster #10), its immediate environment (cluster #8), and its participants (cluster #9) were the focus of co-occurring "setting" topics. Participants differentiated "personal" topics by whether they focused on relationships (cluster #2), day-to-day activities (cluster #3), one's mental state (cluster #4), or one's medical condition (cluster #12), though with a recurring theme of "updating" or "informing" one another as to their status. Other, unanticipated, clusters of "personal" topics also arose that focused on interests (#13), ideas (#14), lifestyle (#16), and core beliefs (#15), seemingly fulfilling an "interest" or "entertainment" function occurring either in place of, or in addition to, the "informing" function (Clark, 1998; Svennevig, 1999). Topics co-occurred in conversation to inform and/or interest/entertain.

Topics also arose together that fulfilled interpersonal agendas. Two goals seemed most clear from topics that co-occurred in this research—a help-seeking/advice-giving goal (cluster #5) and a seek/provide medical treatment goal (cluster #12)—though a desire to "pass time" (cluster #8) or seek comfort (the conjoined cluster of #4 and #5) also suggested themselves in particular clusters of co-occurring topics. Conversational objectives gave rise to co-occurring topics in conversation, and topics arose together to carry out conversational routines, communicative functions, and interpersonal agendas.

#### TOPICAL INVENTORIES

We expected that the topics of participants' talk would reflect and define their relationships with other people. To conduct these analyses, we shifted our focus from individual topics to the topical list and from topical occurrences to both occurrences and absences.

*Relationally defined topical inventories.* We first constructed relationally defined *topical inventories* to represent the pattern of topics participants reported talking about with each relational type.<sup>10</sup> Topics emerged differentially within each relational type. Standardized cell residuals from chi-square tests for equiprobability identified which topics occurred most often within each relational type.<sup>11</sup> For example, the two most frequently reported topics with *family members* (parents, siblings, and grandparents) were education and family; participants talked third most often about work (i.e., occupation) with their parents, upcoming life events with their siblings, and health

inquiries with their grandparents. (A table available via e-mail contains additional results.)

The pattern of topical talk differed significantly by relational type,  $\chi^2(1,068) = 2,539.96, p < .001$ .<sup>12</sup> Adjusted standardized residuals were used to identify topics that occurred more and less frequently than expected for particular relational types. Only 16 topics occurred equally often across the 13 relational types: greeting, current phenomena, transportation, travel, gifts, personal compliment, complain, social groups, movies/plays, music, clothes/fashion, politics, lifestyle, offer services, evaluation of encounter, and reason for leaving/departing. High, moderate, and low frequency of occurrence topics arose differently than expected by chance across relational types. For example, education was a common topic of talk with almost all relational types, though it was more likely with professors and counselors and less likely with very close friends and service people. Expressions of gratitude emerged only moderately often, though significantly less with parents and significantly more with professors and counselors. Participants talked about medication infrequently, and almost exclusively with doctors. Topics differentially emerged both within (i.e., the topical inventory for each relational type) and across relationship types (i.e., differences in the topical inventories across relational types).

*Relationally defining topics of talk.* We assessed the overall similarity and difference in the topical inventories of the 13 relationship types and examined whether participants' relationship type could be predicted knowing only which topics did and did not arise in their conversations. Topical inventory similarity was assessed using correlation and cluster analysis. With pairwise deletion of nonindependent reports, a  $13 \times 13$  correlation matrix was computed to track the similarity of the topical inventories of each pair of relational types; this matrix is listed in Table 3. As topics co-occurred to carry out conversational routines, at least some similarity in the patterning of topical talk across relational types makes sense. The topical inventories of most relational types were at least somewhat similar in that few correlations were nonsignificant ( $r < .18$  at  $p < .05$ ), and a number were quite large ( $r > .70$ ). The topical inventories of the 13 relational types differed in their similarity with the highest similarity evidenced among family members (parents, siblings, grandparents), close peers (very close friends, significant others), work relationships (bosses, coworkers), and helping professionals (professors, counselors), and between (on average) acquaintances and everyone else (except medical doctors).

We conducted a hierarchical cluster analysis, using the method of average linkage between groups, on the correlation matrix of the 13 relational types' topical inventories to corroborate statistically our claims of topical inventory similarity. Jumps and flattenings in the agglomeration coefficients suggested that an 8-cluster solution best fit

Table 3  
*Similarity of Relational Types: Correlation of Topical Inventories*

	PAR	SIB	GRND	ACQ	VCF	SIGO	BOSS	COW	KID	PROF	COUN	SERV	DOC
Parents (PAR)		<u>.85</u>	<u>.83</u>	.69	.66	.64	.65	.69	.55	.52	.60	.22	.30
Siblings (SIB)	<u>.85</u>		.80	.74	.71	.68	.43	.66	<u>.66</u>	.54	.55	.31	.28
Grandparents (GRND)	.69	.80		.67	.53	.55	.47	.57	.63	.52	.51	.40	.34
Acquaintances (ACQ)	.66	.74	.67		.72	.67	.60	.77	.58	.56	.55	<u>.57</u>	.25
Very close friends (VCF)	.64	.71	.53	.72		<u>.79</u>	.52	.67	.41	.30	.44	.17	.15
Significant other (SIGO)	.65	.68	.55	.67	.79		.52	.71	.49	.34	.38	.28	.17
Bosses (BOSS)	.69	.43	.47	.60	.52	.52		<u>.85</u>	.27	.36	.50	.35	.20
Coworkers (COW)	.55	.66	.57	<u>.77</u>	.67	.71	<u>.85</u>		.39	.42	.52	.52	.18
Young children (KID)	.52	.66	.63	.58	.41	.49	.27	.39		.51	.55	.29	.12
Professors (PROF)	.60	.54	.52	.56	.30	.34	.36	.42	.51		<u>.84</u>	.24	.34
Counselors (COUN)	.22	.55	.51	.55	.44	.38	.50	.52	.55	<u>.84</u>		.30	<u>.40</u>
Service people (SERV)	.30	.31	.40	.57	.17	.28	.35	.52	.29	.24	.30		.06
Medical doctors (DOC)	.60	.28	.34	.25	.15	.17	.20	.18	.12	.34	.40	.06	
Mean	.22	.60	.57	.61	.51	.52	.48	.58	.45	.46	.51	.31	.23
Minimum	.22	.28	.34	.25	.15	.17	.20	.18	.12	.24	.30	.06	.06
Maximum	.85	.85	.83	.77	.79	.79	.85	.85	.66	.84	.84	.57	.40

*Note.* Looking down each column, the correlation is underlined of the topical inventory most similar to the relational type defining the column.

the data, as the dendrogram in Figure 1 diagrams. Professors and counselors were alike in their topical inventories, forming a *helping professionals* cluster; bosses and coworkers formed a *work relationship* cluster; parents, siblings, and grandparents formed a *family members* cluster; and close friends and significant others formed a *close peers* cluster. These clusters of relational types were defined by similarity in topical talk; that is, they clustered because of topical inventory similarity, not because they were family, peers, work relations, or helping professionals. The topical inventories of acquaintances, young children, service people, and medical doctors were sufficiently different from the others, and so remained in their own separate clusters. The 13 relational types yielded 8 distinct patterns of topical talk.

Given relational types were distinguishable by their topical inventories, we tested whether the relational type of conversationalists could be predicted knowing only which topics did and did not arise in conversations. We conducted two separate discriminant analyses—of the 13 relational types and the 8 clustered types—using as predictor variables the presence/absence of the 90 topics. In both analyses, we derived classification functions only from the primary sample (i.e., all reports are independent) and determined whether prediction accuracy in the secondary sample significantly exceeded chance expectations, a strong test that offsets the effect of overestimation of correct prediction when validation occurs on the same sample as classification function derivation (Klecka, 1980). In the secondary sample, by chance alone we would be able to predict accurately from 9% (proportional chance) to 16% (maximum chance) of the conversations for the 13 relational types, and from 17% (proportional chance) to 28% (maximum chance) for the 8 clustered relational types. To offer utility, predictor variables must improve accuracy at least 25% above chance levels (Hair, Anderson, & Tatham, 1987), here requiring prediction accuracy in the secondary sample of 11% to 21% for the 13 relational types and 22% to 35% for the 8 clustered relational types.

When treated distinctly, in the secondary sample only significant others (31% of the time), young children (50%), professors (73%), service people (70%), and doctors (59%) were significantly predictable from their topics of talk.<sup>13</sup> Though taken as a whole, topics of talk in conversation predicted the 13 relational types with 27% accuracy, significantly better than chance alone (Press's  $Q = 123.36$ ,  $p < .001$ ), and reducing prediction errors by 19% ( $\tau = .193$ ). Confusions in prediction were greatest among types having similar topical inventories (e.g., between parents, siblings, and grandparents; and between bosses and coworkers). Classification accuracy for the 8 clustered relationship types in the secondary sample was quite good (from 35% to 80%) for all types but acquaintances (14%), and taken as a whole, topics of talk in conversation predicted the 8 clustered relational types with 46% accuracy, significantly better than chance alone (Press's  $Q = 242.82$ ,  $p <$

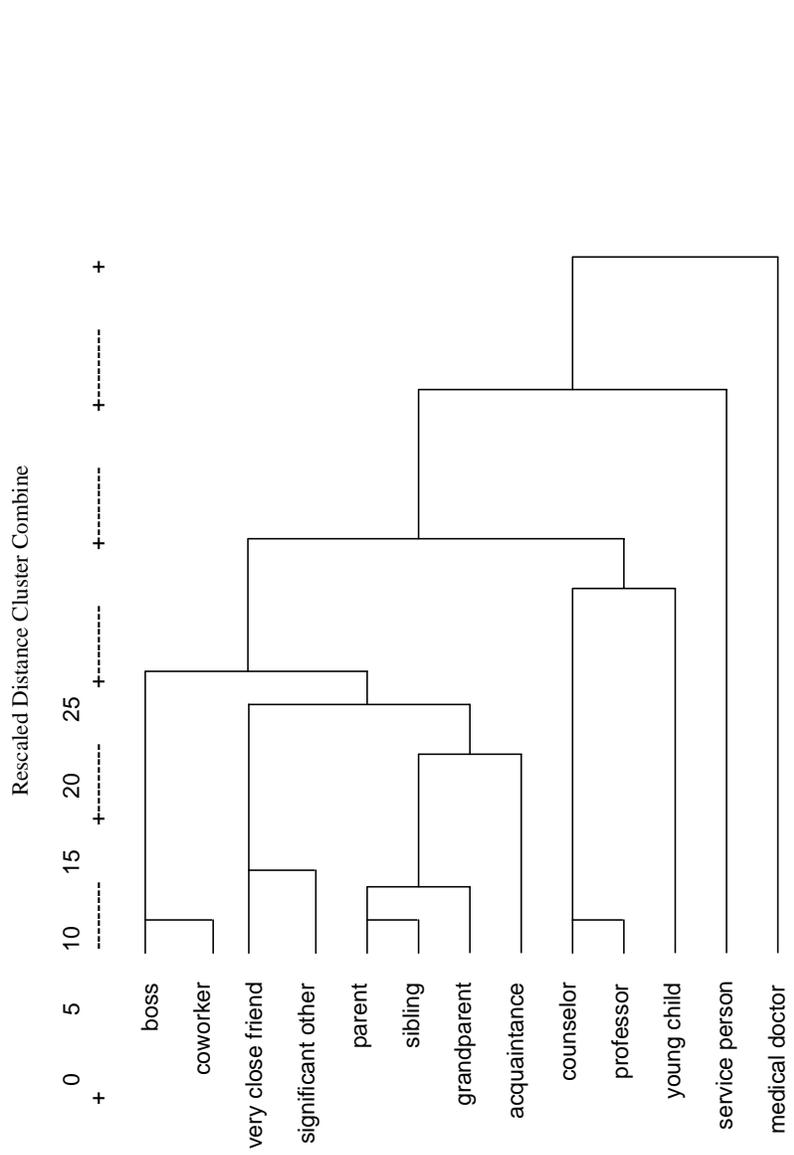


Figure 1. Dendrogram of Topic Inventory Similarity of Different Relational Types.

001), reducing prediction errors by 34% ( $\tau = .341$ ).<sup>14</sup> Notably, conversations between acquaintances were among the most difficult to classify and were confused almost equally with family members, close peers, work relationships, young children, and service people; that is, all but medical doctors. A conversation's topics of talk distinguished relational types significantly above chance. Relational types were defined by topical inventories and a conversation's topics of talk were relationally defining.

## DISCUSSION

The topics on which people talk arose with varying frequency, co-occurred for a variety of reasons, and were defined by, and defined, various relationships with others. The most commonly occurring topics of talk were those most central to people's lives and that "checked in" with (i.e., updated) and "checked out" from (i.e., departed) others. Topics arose together to carry out conversational routines (e.g., starting and ending), fulfill communicative functions (e.g., informing, interesting/entertaining), and achieve interpersonal agendas (e.g., seeking help, seeking medical treatment, passing time, comforting). Topics differed in their absolute prospects of arising *within* particular relational types and in their relative prospects of arising *across* relational types. The relational type of two conversationalists was significantly predictable knowing only the topics arising (and not arising) in their conversation. The profile of topical talk is one of patterns in topics that arise in people's lives, that co-occur in their conversations, and that define their relationships.

Our understanding of a conversational topic is both advanced and challenged by these findings. Opening the door to theoretical advance is the topical directory (available via e-mail), similar to and extending prior MOP research, and revealing that people represent their topical talk using a similar and basic level of abstraction quite different from the syntactic and structural approaches more commonly employed by researchers. The causes and consequences of participants' "about-content-discourse" understanding of topical talk are theoretically intriguing to pursue. For example, why do people abstract their topical talk to this "about-content-discourse" level? Perhaps this level of abstraction adjusts to inherent memory limitations; perhaps this level of abstraction is efficient, able to retain maximum information with minimum resources expended; perhaps this level of abstraction is cooperative, reflecting what is Gricean informative for relaying the content of one's conversations to others. Whatever the reasons, we believe it important to investigate why this level of topical abstraction arises. Similarly, we believe it important to investigate the effects of people's use of an

“about-content-discourse” level of abstraction to understand the topics of their talk. Is information “lost” and/or “gained” by this process of abstraction, and if so, is this information “useful”? The MOP framework suggests that prototypical talk about a topic might be integrated and abstracted to the “about-content-discourse” level, whereas unexpected talk might be retained nearly verbatim, which research on conversational memory and memorable messages supports (Kellermann, 1995). Although topical points of view can differ, each can advance our understanding of topical talk (Palomares, Bradac, & Kellermann, 2004).

Theoretically challenging to our understanding of conversational topic is that participants count as topics what scholars might count as rituals (e.g., greeting) and speech acts (e.g., complain) rather than topics (e.g., Svennevig, 1999). Participants’ reports of rituals and speech acts as topics are not an isolated artifact of this research (e.g., Garvey, 1984; Kellermann et al., 1989; Kuder & Bryen, 1993; Marvin et al., 1994). Grappling with rituals and speech acts as topics is a recurring, and to date unaddressed, issue. Accepting the reported rituals and speech acts as topics allows theoretical consideration of how and why such topical representations arise. When and why do people report the topic of a conversation to be a ritual or speech act versus what the ritual or speech act is about? Perhaps conversational expertise affects people’s topical representations; conversational experts use speech acts more than nonexperts in their conversational representations (Daly et al., 1985). Perhaps conversational goals alter people’s topical representations. When the primary purpose of joke-telling is to humor others, the speech act might be the topic; when the primary purpose is to make a point about an individual’s hometown or family or age, the topic might be what the joke is about. We find it interesting that individuals represent conversational topics as both speech acts and what the speech acts are about, and believe it important to explore further the ramifications of this recurring finding.

In everyday conversations, people talk on a limited number of topics. Across 500 conversations, participants reported talking on only 90 different topics, to us, a surprisingly small number. Our participants most often talked on topics central to their lives and of interest to them and the other person in ways that managed the conversation and occasioned achieving of their goals. We infer from the topical co-occurrence cluster analysis that topical talk proceeds modularly with one topical cluster defining, and other topical clusters typically expanding, a minimalist conversation. Certain topics regularly arise together, though fail to co-occur regularly with topics in the conjoined (i.e., expanded) minimalist cluster. “Setting” talk is claimed to be talk that is quickly exhausted unless people introduce other topics into the conversation (Maynard & Zimmerman, 1984; Sacks, 1992; Svennevig, 1999). We find two separate clusters of setting talk, one *never* joining other clusters

and containing topics that likely make for a short conversation, unless people find a way to shift their talk to other topics (e.g., present situation, positive evaluation, personal compliment), and the other *ultimately* joining the minimalist conversation cluster; in both cases, “setting” talk seemingly made co-occurring talk on other topics less likely. We also infer from the topical co-occurrence analysis that talk on *encyclopedic* topics such as beliefs and interests occurs (Svennevig, 1999), though does not commonly co-occur with talk about one’s social relations, activities, emotional status, or help-seeking. Talk about one’s physical/medical condition takes place in a set of co-occurring topics that *can* arise in any conversation, though the topical inventories suggest most often occurs when interacting with medical doctors. Topics regularly arise together in talk and provide “modules” people can use to carry out conversational routines, communicative functions, and interpersonal agendas.

The topics of our everyday talk are important, defined by and defining of our relationships with others. We find remarkable that from just a *list* of the topics of a conversation—knowing not exactly what was said or how—that we can predict the nature of people’s relationship with others over 45% of the time. Do people cognitively represent a topical inventory for each relational type they might encounter? We think not; rather, we expect that people maintain each topic as a scene and have MOPs that organize these scenes to carry out communicative routines, fulfill communicative functions, and achieve particular goals. For example, MOPs might organize scenes to let people get to know each other (as in the initial, informal conversation MOP) or get medical help (as in the topical co-occurrence cluster). We believe the very modularity we find in topical co-occurrences points to a dynamic, rather than a static, cognitive representation of conversational structure (Kellermann, 1995). No matter the cognitive representation, topics of talk are powerful signals of the types of relationships we maintain with others.

The power of topical talk to signal the nature of people’s relationship with others is perhaps more than just the power to profile topical inventories and predict relational types. People might select topics of talk far more strategically than we investigate in this research in order to manage (and just not reflect) their relationships with others. Relational types that blend interpersonally—friend and coworker, sibling and friend—have different topical profiles, whereas relational types unlikely to blend interpersonally—grandparent and sibling, coworker and boss—have similar topical profiles. People might signal a desire for, or perhaps even create changes in, a relationship by moving from the pattern in one topical inventory toward the pattern in another topical inventory. The topical inventory of acquaintances were the most difficult to classify and were confused almost equally with most other relational types, which might give particular maneuvering room to

“move” acquaintances to friends, or friends to acquaintances. Supportive of this reasoning, Maynard and Zimmerman (1984) suggest that people display a desire for anonymity by engaging in “setting” talk, and Kellermann and Lim (1990) reported that persons wanting to become acquainted moved to later sets of topics in the initial conversation MOP whereas persons not wanting to become acquainted maintained talk on earlier sets of topics—often “setting” talk—in the MOP. Given unique topical inventories for family members, close peers, acquaintances, work relationships, helping professionals, service people, young children, and medical doctors, we believe people might manage more than “setting” talk, and they might do so both to escalate relationships and/or prevent them from escalating. Topics might not only display our relationships *to* others, but define relationships *with* others.

## NOTES

1. Topics are frequently studied at the sentential level of analysis (e.g., Chen, 1996; Reinhart, 1981; Schlobinski & Schütze-Coburn, 1992). The structural perspective also underlies much of the topic literature (e.g., G. Brown & Yule, 1983; Button & Casey, 1988/1989; Crow, 1983; Maynard, 1980).

2. A table summarizing our literature review of the topics that arise in conversations with others is available electronically from the second author via e-mail.

3. As our purpose was not one of obtaining relational type variability within each dimension unconfounded by other dimensions, we did not expect the measured characteristics of the selected relational types to be independent of each other. We sought only a range of different relational types defined by differences on the measures considered together, which we obtained.

4. Participants self-defined relational types except for the limits placed on the definition of a young child (less than 12 years old who were not participants' siblings), as people are familiar with these types, routinely identify their relationships as falling into particular types, and easily identify attributes that are both common to, and distinguish, the various types (Marwell & Hage, 1970; Wilmot & Baxter, 1989; Wish et al., 1976).

5. A different number of relational types was provided to different participants because course credit requirements relating amount of time of participation to credit for participation varied across the sample. Most participants (77%) were asked to report the topics of their talk with only two relational types (methodically mixed across surveys); whereas smaller numbers of participants were given 3 (9%) or 5 (14%) relational types on which conversational reports were requested.

6. Participants most often indicated not having an extended conversation with counselors (57% of requests), followed by service people (41%), young children (38%), bosses (33%), coworkers (32%), significant others (19%), medical doctors (18%), professors (17%), grandparents (14%), siblings (10%), acquaintances (8%), very close friends (2%) and parents (2%).

7. The topical directory used for coding is available electronically from the second author.

8. Monte Carlo studies show the oft-learned rule of a minimum expected cell size of 5 or more, generated in precomputer days and by intuition, is too conservative (Fienberg, 1980; Odoroff, 1970; Yarnold, 1970). This rule has been described as arbitrary (Siegel & Castellan, 1988).

9. A table listing the 90 topics, the number of conversations in which each topic was reported in the primary and secondary samples, and a z-score reflecting their overall frequency of occurrence for each topic is available from the second author via e-mail.

10. E-mail the second author for a table outlining: (a) the percentage of times a particular topic arises within each relational type based on an analysis of standardized residuals for each relational type; (b) the topics occurring more or less often than expected for a relational type based on an analysis of standardized residuals for the table as a whole; and (c) the results of the statistical test associated with these analyses.

11. The  $\chi^2$  tests each rejected the null and yielded results identical to the Cochran's Q tests. No cell had an expected value of 0 in any  $\chi^2$  test. Removal of topics of talk having fewer than 5 occurrences, and then fewer than 10, did not change the pattern of the results.

12. No cell had an expected frequency of 0. The null hypothesis was rejected. The unbiased exact critical ratio for the  $\chi^2$  yielded identical results,  $z = 32.54, p < .001$ . Removal of topics of talk having fewer than 5 occurrences, and then fewer than 10, did not change the pattern of the results.

13. A table of the full classification analyses is available from the second author.

14. We additionally conducted discriminant analyses removing as predictor variables topics having fewer than 5 occurrences, and then fewer than 10 occurrences. Removal of these low frequency topics had no effect on prediction accuracy. For the 13 relational types, classification accuracy in the secondary sample was 28% when all predictor topics had 5 or more mentions and 24% when all had 10 or more, both of which are significantly better than chance alone (Press's  $Q = 139.89, p < .001$ , and  $93.42, p < .001$ , respectively), and no different than the 27% prediction accuracy with all topics included. When topics with fewer than 5, and then fewer than 10, mentions were removed, errors in prediction were reduced by 21% ( $\tau = .207$ ) and 17% ( $\tau = .166$ ), respectively. For the 8 relational types, classification accuracy in the secondary sample was 47% when all predictor topics had 5 or more mentions and 47% when all had 10 or more, both of which are significantly better than chance alone (Press's  $Q = 261.26, p < .001$ , and  $257.55, p < .001$ , respectively), and no different than the 46% prediction accuracy with all topics included. When topics with fewer than 5, and then fewer than 10, mentions were removed, errors in prediction were reduced by 36% ( $\tau = .356$  and  $.361$ , respectively).

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