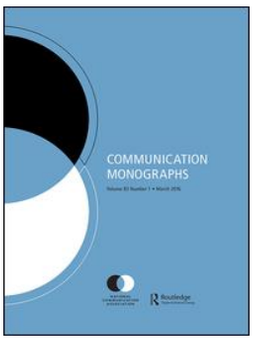

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Mapping the terrain of person-centered supportive conversations

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ABSTRACT

This study explores the conversational terrain of supportive conversations that vary in person centeredness (PC). Our team transcribed and unitized 223 conversations in which a discloser talked about an upsetting event to a listener trained to exhibit either low (LPC), moderate (MPC), or highly person-centered (HPC) comfort. Each utterance was coded for PC with a modified version of the traditional nine-level hierarchy. HPC-coded turns comprised 24% of HPC conversations, while LPC-coded turns comprised almost half of LPC conversations. Over 95% of turns in MPC conversations were classified as MPC. Additionally, turn-level coding and global ratings of PC differentially predicted outcomes. We discuss the implications of these conversational profiles in the context of how the PC content of conversations might aid in cognitive reappraisal.

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Emotional support; enacted support; person centeredness; supportive conversations

Extensive research consistently reports the coping potential of high-quality emotional support (Holt-Lunstad, Smith, & Layton, 2010). Communication scholars have contributed to this interdisciplinary conversation by offering a focus on *enacted emotional support* or what people say and do when called on to help others manage difficult emotions (Burleson & Goldsmith, 1998; Goldsmith, 2004; MacGeorge, Feng, & Burleson, 2011). To date, the most influential conceptualization of enacted support has been person-centered (PC) emotional support, defined as the extent to which a supportive message explicitly acknowledges and validates how a distressed person feels and thinks about a difficult event (Burleson, 1987; for reviews see Jones & Bodie, 2014; MacGeorge et al., 2011). Messages *low in person centeredness* (LPC) deny or minimize the distressed person's expressed feelings by condemning (level 1), challenging the legitimacy of (level 2), or ignoring (level 3) them. *Moderate person-centered* (MPC) messages implicitly recognize the distressed person's experiences by distracting (level 4), offering

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non-feeling centered condolences (level 5), or offering non-feeling centered explanations for the stressful event (level 6). *High person-centered* (HPC) messages signal availability, concern, and compassion by explicitly recognizing and acknowledging the distressed person's expressed feelings (level 7), offering elaborated acknowledgment and explanation of those feelings (level 8), or helping the person see how these feelings fit a broader context (level 9). More than four decades of research show that PC comfort is among the most important properties of more and less beneficial emotional support (High & Dillard, 2012).

Examining ways in which person-centered (PC) message characteristics have the potential to assist coping has defined the study of supportive communication since the development of the nine-level hierarchical PC coding system (Applegate, 1980; Burleson, 1982). We stress *potential* because most studies have examined how study participants evaluate messages that vary in PC (message evaluations) and have largely ignored actual message outcomes (Bodie, Burleson, & Jones, 2012). Message-centered studies ask participants to imagine a stressful situation and then provide judgments of the potential helpfulness of one or more researcher-generated messages designed to manipulate PC (High & Dillard, 2012). These studies produced important findings but tell scholars little about how actual PC messages function over the course of a supportive conversation. As scholars have moved from examining hypothetical messages and stressors to the contours of supportive conversations, the original hierarchical coding system has often given way to rating conversations for PC characteristics (e.g., level of acknowledgment; High & Solomon, 2014; Jones & Guerrero, 2001). Interaction-based studies have thus made a conceptual leap not yet confirmed with data: that conversations *rated* as possessing certain PC qualities, in fact, contain messages that are *coded* for that specific PC level. Ratings of PC characteristics operationalize underlying theoretical dimensions that also define the individual PC levels of the traditional hierarchy (Goldsmith, McDermott, & Alexander, 2000). Whether PC ratings correspond with levels of PC comfort expressed in coded provider turns has remained an unanswered empirical question that we address in the current project.

Linking PC messages to PC conversations

PC comfort was originally defined as variability in message content, yet few interaction-based studies have actually coded conversational utterances. Samter and MacGeorge (2016) argued against the abandonment of coding messages with the original nine-level hierarchy (Burleson, 1982), because rating and coding data capture PC at different levels of abstraction. Whereas *coding* captures the manifest content of conversations, *rating* captures global impressions of conversations that often also implicitly contain raters' judgments about the provider and the supportive context (Priem & Solomon, 2015a; Priem, Solomon, & Steuber, 2009). Global ratings have been used both for general outcomes, such as sense of supportiveness (Afifi, Afifi, Merrill, Denes, & Davis, 2013), and manifest characteristics of talk that contribute to these outcomes. For example, Priem and Solomon (2015b) found that of three latent dimensions that index conversational quality, only support explicitness (e.g., comments that directly state the provider's intent) but not elaboration (e.g., embellishing messages) and involvement (e.g., vivid language, intensifiers) predicted emotional improvement.

Samter and MacGeorge (2016) also observed that coded data can be aggregated in various ways. First, researchers have used the support provider turn as the unit of analysis, placing each turn into one of the nine original PC hierarchy categories (Burleson, 1982). The next two coding procedures treat the entire conversation as the unit of analysis, placing each conversation into one of nine categories based on their predominant focus or PC emphasis. One way to code conversations into a PC category is to capture the *highest proportion* of turns reflecting a specific PC-coded level within each conversation. The last approach places an entire conversation into one PC category on the basis of the turn that possesses the *highest PC level* the provider has used over the course of that conversation (Tamborini, Salomonson, & Bahk, 1993).

Aligning with work that has demonstrated the importance of the perspective used to assess provider messages (Bodie, Jones, Vickery, Hatcher, & Cannava, 2014; Priem et al., 2009; Priem & Solomon, 2015b), our study generates validity evidence for using global PC ratings and PC codings as primary data in research that examines supportive conversations. There is currently no study that has tested associations among various operational approaches to PC-coded data. Given the labor-intensive work of coding turns within conversations for PC, our study seeks to provide evidence that either rating conversations or coding for predominant focus could be utilized at no loss in validity. We summarize our objectives in the following hypothesis and research question:

> H1: PC-rated conversations correspond with PC-coded speech turns such that conversations rated as highly person-centered will have proportionally (and significantly) more speech turns coded at levels 7–9, compared to those rated as moderately person-centered (which should contain primarily turns coded into levels 4–6) and low person-centered (which should contain primarily turns coded into levels 1–3).

> RQ1: To what extent are the four ways of representing the PC content of conversations (rating, turn-level coding, highest proportion, and highest PC level) associated?

The impact of PC comfort on outcomes

Affective improvement

A primary outcome of support is *affective improvement*, which is linearly associated with conversation-level PC ratings (Jones & Guerrero, 2001). We do not yet know the extent to which variability in the *proportions* of LPC, MPC, and HPC turns within conversations contribute to affective change. Based on message-centered research, we would expect the proportion of LPC messages to negatively impact affect improvement and the proportion of HPC messages to positively impact affect improvement. The role of MPC message content, however, is less clear. Although the general pattern that emerged from message-perception research shows MPC comfort underperforming compared to HPC comfort, some studies have reported equivalent outcomes for MPC and HPC support (Bodie, 2013; MacGeorge, Graves, Feng, Gillihan, & Burleson, 2004). We expect HPC message content in conversations to be positively related to affect improvement based on claims of what HPC comfort looks like when it is enacted in conversations. Burleson (2003) outlined several specific verbal message strategies that are classified as MPC. For instance, person-centered support providers should (a) encourage "the target to tell his

or her story about the problem or upset ('What happened here? Can you tell me about what happened?')" and (b) prompt "continuation and elaboration" by using backchannel responses ("Um-hmm. Yes"), as well as short questions ("And then what happened?") (pp. 582–583). These MPC statements might contribute to affective improvement by explicitly prompting disclosers to share, and subsequently reflect and reframe, the stress experience (Jones & Wirtz, 2006). We therefore predict that:

H2: Affective improvement is positively associated with the proportion of MPC and HPC messages within conversations and negatively associated with the proportion of LPC messages within conversations.

Provider competence

We examine three competence outcomes. *Supportiveness* is the degree to which the provider is perceived by the support recipient as empathic and understanding. *Expressiveness* is the degree to which the recipient views the support provider as engaged in the conversation (Jones, 2004; Priem & Solomon, 2015b). *Conversation management* refers to a provider's ability to keep the conversation on track. HPC messages help providers display a genuine desire to assist with coping efforts (Jones, 2004). Thus, the proportion of HPC messages within conversations should be positively associated with the three competencies (Burleson, Holmstrom, & Gilstrap, 2005; Youngvorst & Jones, 2017). A key marker of conversation management is backchanneling, or the use of minimal encouragers like "mhm" and "yeah" that signal attention and interest. Likewise, questions that keep the discloser focused on the stressful event and summary statements that help establish mutual understanding (i.e., paraphrasing) assist in keeping the conversation moving forward. Thus, MPC should also be positively related to the three provider dimensions. LPC speech is often defined as steering the conversation away from the recipient's thoughts and feelings to the provider's experiences. Narratives that draw attention to the provider's past experiences could derail the conversation and contribute to negative evaluations of the three provider competencies.

H3: Evaluations of a) supportiveness, b) expressiveness, and c) conversation management are positively associated with the proportion of MPC and HPC speech and negatively associated with the proportion of LPC speech in conversations.

High and Dillard (2012) alert researchers to attend carefully "to the structural validity of coding at nine levels and analyzing at three" (Samter & MacGeorge, 2016, p. 113). There have been no interaction-based studies that test whether coding at nine PC levels provides nuanced information about the support process, particularly whether proportions of each minor PC level within a major level (e.g., levels 1–3 in LPC) are equivalently associated with outcomes. That is, do each of these minor levels contribute similarly to outcomes of interest? Although Tamborini et al. (1993) coded for predominant focus using all nine PC levels, their analyses proceeded by collapsing across three major PC levels; the same strategy was used by Burleson and Samter (1985). We, therefore, advance the following research question:

RQ2: Do minor levels within major divisions of the PC hierarchy associate equivalently with affective improvement and competence evaluations?

Method

Participants and procedures

The original data set, collected by Jones and Guerrero (2001), contained 264 five-minute conversations between a confederate support provider and a participant support recipient. In the process of digitizing the original VHS recordings, 41 tapes were damaged beyond repair, leaving a sample of 223 conversations that could be transcribed and coded for PC. Of these conversations, only 189 also possessed PC ratings (63 LPC, 63 MPC, 61 HPC). Disclosers were students (female $n = 105$, male $n = 114$, 4 missing; $M_{age} = 21.8$, 18–49) from introductory and upper division communication classes at Arizona State University. The majority of the sample identified as White/European Americans ($n = 179$), Mexican-Americans, Latinos/as, or Hispanics ($n = 16$), and Asian or Asian Americans, ($n = 11$), while less than 5% of the sample identified as another ethnic group. The providers were two male and two female confederates who were trained to enact HPC ($n = 79$), MPC ($n = 69$), and LPC ($n = 75$) support. Confederates were trained for roughly 25 hours by role-playing each PC condition (see Jones & Guerrero, 2001; Jones & Wirtz, 2006). Training focused on the major PC levels rather than PC sublevels. Briefly, in MPC conditions confederates were trained to focus on the content of the event by expressing condolences and mild concern. In both HPC and LPC conditions, confederates focused on the disclosers' emotions. In HPC conditions, confederates used comments that directly acknowledged and legitimized or perception-checked discloser emotions. In LPC conditions, by contrast, confederates minimized disclosers' emotions, encouraged disclosers to forget about the stress event or even blamed the discloser for what happened. Upon entering the lab, participants were seemingly randomly assigned to the role of discloser to discuss an emotionally upsetting event; confederates were randomly assigned to exhibit LPC, MPC, or HPC support prior to the conversation. Manipulation checks were based on PC ratings (see below). Although articles have been published from these data (e.g., Jones & Wirtz, 2006), the coding and analyses completed here are new.

Coding messages for PC

Transcripts were initially generated by a professional transcriptionist. After a team of graduate students updated transcripts, an independent team of eight undergraduate students unitized conversations on the basis of the utterance, an "independent clause, standing by itself or occurring along with one or more dependent clauses" (Auld & White, 1956, p. 273). We unitized utterances for a related project that is not relevant for the current study. Unitization reliability was assessed with a subset of 25 conversations and deemed adequate (Guetzkow's $\bar{U} = .02$, .00–.07). Each research assistant then unitized a set of conversations independently. After unitization was complete, each confederate provider utterance was coded for PC by a second team of eight undergraduate students. Coders were trained for approximately 10 hours with a formal coding manual. Individual meetings were held each week to minimize coder drift (avg. $\hat{\kappa} = .86$, .72–.94).

PC coding was accomplished with an adapted version of the nine-level hierarchical coding system originally devised by Applegate (1980) and Burleson (1982). The full coding manual is available online as a supplemental file (henceforth online coding

manual). Figure 1 shows our decision tree for coding utterances for PC. Coders were instructed to first read the entire conversational transcript to get a sense of the conversation and to watch the videotaped recording of the conversation. Next, coders determined whether the utterance explicitly addressed the feelings or perspectives of the discloser, regardless of valence. If the utterance was purely content-based, it was deemed an MPC utterance that was either a level 4 (diverting attention from what happened), 5 (expressing non-feeling centered condolences), or 6 (nonfeeling-centered acknowledgments, such as questions about the event). If the comment explicitly addressed the discloser's feelings or perspective, coders determined the valence of the utterance. Comments that denied feelings or perspectives were judged as LPC, and comments that validated feelings and perspectives were judged as HPC. Lastly, coders determined whether LPC comments were blaming/condemning (level 1), challenging (level 2), or ignoring feelings or perspective (level 3). If the comment was HPC, coders decided whether the utterance was recognizing (level 7), explaining (level 8), or reframing the upsetting event and the associated feelings (level 9). Comments that included small talk prior to the official start of the supportive conversation were coded as 0 and subsequently deleted from the transcript and all analyses.

To allow for comparisons to message-based studies, we merged successively occurring provider PC utterances into one provider turn. Utterance clusters separated by discloser commentary were treated as discrete turns. To answer RQ1, we generated four provider turn-level PC measures. PC-average ($M = 5.03$, SD = 1.15) was calculated as the average of the PC levels of all utterances in that turn. PC-global ($M = 5.05$, SD = 1.21) was calculated as the PC level of the last utterance in that turn. As these two turn-level PC measures were statistically redundant, $r = .98$, $p < .001$, we only report data for *PC-global* to ease interpretation. The third and fourth turn-level PC variables represent PC at the level of the conversation but are based on turn-level coding. *PC-highest* was computed based on the highest level (1–9) of a PC turn enacted in the entire conversation, regardless of other proportions. For example, if a provider utilized one level-7 turn across the entire conversation, the PC-highest for that conversation was scored as 7. Finally, *PC-focus* was computed based on the highest proportion of turns within any of the nine levels. For instance, if a provider utilized 40% level-5 turns, 10% level-6 turns, and 50% level-7

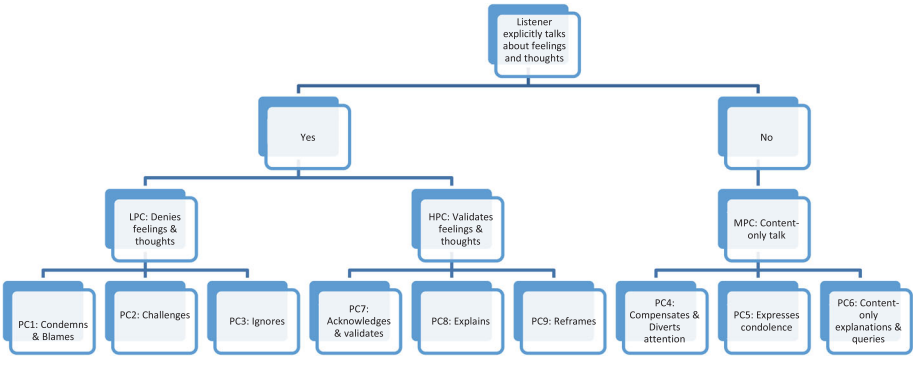

Figure 1. Decision tree for coding conversational utterances for person centeredness. Sample comments are in the supplemental online coding manual.

turns, PC-focus for that conversation was scored as 7. Both PC-highest and PC-focus are related conceptually to PC ratings because both indices capture the predominant focus of PC. Descriptive data for all four measures are presented in Table 1.

Rating conversations for PC

Ratings were accomplished by two trained undergraduate research assistants who rated variations in conversational PC on five 7-point semantic-differential items: self-centered/feeling (other)-centered, invalidates/validates, judges/empathizes, disregards/acknowledges, and unconcerned/concerned. During the 5-hour training, raters were introduced to the traditional nine-level PC hierarchy and then practiced rating the confederate messages from the video-recorded conversations. Raters were instructed to watch the entire conversation first and then re-watch the conversation to rate provider comments uttered during the first and the second halves of the conversation separately; ratings were subsequently collapsed because they were highly correlated. Interrater reliabilities were in excess of .80, and details of these ratings are reported in Jones and Guerrero (2001). As expected, ratings differed as a function of manipulated level of PC, $F(2, 186) = 797.18$, $p < .001$, $\eta^2 = .90$; all pairwise comparisons were statistically significant at $p < .001$: LPC ($M = 1.30$, SD = .88), MPC ($M = 4.05$, SD = .19), HPC ($M = 6.47$, SD = .87).

Outcome measures

After the conversations, participants evaluated the four outcome measures (affective improvement, supportiveness, conversation management, expressiveness) on 7-point scales [1 = *strongly disagree*, 7 = *strongly agree*; see Jones (2004) for full-scale information)]. *Affective improvement* was measured using five items from Clark et al.'s

Table 1. Descriptive statistics for PC variables by manipulated PC level.

								95% CI for *M*			
		N	*M*	SD	SE	Mdn	Mo	Lower	Upper	Min.	Max.
PC-average	LPC	2278	4.05	1.19	.03	4.00	3.00	4.00	4.10	1.00	7.00
	MPC	2395	5.31	.67	.01	5.00	5.00	5.28	5.34	3.00	8.00
	HPC	2625	5.61	.88	.02	5.00	5.00	5.58	5.64	3.00	9.00
PC-global	LPC	2278	4.02	1.24	.03	4.00	3.00	3.97	4.07	1.00	7.00
	MPC	2394	5.36	.71	.01	5.00	5.00	5.33	5.38	3.00	9.00
	HPC	2624	5.67	.94	.01	5.00	5.00	5.03	5.08	3.00	9.00
PC-rated	LPC	63	1.30	.88	.04	1.00	1.00	1.07	1.23	1.00	2.20
	MPC	63	4.05	.19	.01	4.00	4.00	4.00	4.04	4.00	5.20
	HPC	63	6.47	.87	.08	7.00	7.00	3.56	4.24	5.00	7.00
	ALL	189	3.91	2.22	.16	4.00	4.00	3.59	4.23	1.00	7.00
PC-highest	LPC	75	5.93	.47	.05	6.00	6.00	5.83	6.03	5.00	7.00
	MPC	69	6.20	.50	.06	6.00	6.00	6.08	6.32	6.00	9.00
	HPC	79	7.58	.76	.09	7.00	7.00	7.40	7.76	6.00	9.00
	ALL	223	6.60	.95	.06	6.00	6.00	6.47	6.73	5.00	9.00
PC-focus	LPC	75	3.88	1.09	.13	3.00	3.00	3.62	4.13	2.00	6.00
	MPC	69	5.41	.60	.07	5.00	5.00	5.27	5.55	3.00	6.00
	HPC	79	5.28	.62	.07	5.00	5.00	5.14	5.42	5.00	7.00
	ALL	223	4.85	1.06	.07	5.00	5.00	4.71	4.99	2.00	7.00

PC-average: arithmetic mean of PC utterances within one turn; PC-global = PC level of the last utterance in that turn; PC-rated = conversation-level rating; PC-highest = highest level of PC coded in the entire conversation; PC-focus = predominant focus, based on highest proportion of turns in the conversation coded at that PC level. LPC = Low person-centered turns; MPC = Moderate person-entered turns; HPC = High person-centered turns.

(1998) Comforting Response scale (e.g., "My conversational partner made me feel better about myself;" $\alpha = .85$, $M = 3.75$, SD = 1.16). Supportiveness, conversation management, and expressiveness were generated from Cupach and Spitzberg's (1981) Ratings of Alter Competence (RAC) Scale. *Supportiveness* consisted of 11 items (e.g., "He or she was supportive;" $\alpha = .95$, $M = 5.20$, SD = 1.11), *conversation management* consisted of five items (e.g., "He or she was versatile;" $\alpha = .77$, $M = 4.67$, SD = .91), and *expressiveness* consisted of seven items (e.g., "He or she appeared tired and sleepy;" $\alpha = .88$, $M = 5.50$, SD = 1.02).

Results

Preliminary analyses

Disclosers produced a total of 23,693 utterances, and confederate providers produced 12,162 utterances. On average, disclosers produced 106.25 utterances (Range = 38–190, SD = 27.9, Mdn = 105.00, Mo = 88.00), and confederate providers produced 54.54 utterances (Range = 6–156, SD = 25.67, Mdn = 52.00, Mo = 52.00) per conversation. Table 2 provides descriptive utterance-level information separated by role and the three manipulated PC conditions (i.e., LPC, MPC, HPC). One-way ANOVAs showed a significant between-groups effect for both disclosers, $F(2, 220) = 11.77$, $p < .001$, $\eta^2 = .10$, and confederates, $F(2, 220) = 10.27$, $p < .001$, $\eta^2 = .09$, as a function of manipulated PC condition. Post-hoc comparisons (LSD) showed that disclosers contributed significantly fewer utterances when paired with an LPC provider than with an MPC or HPC provider ($ps < .001$); disclosers in MPC and HPC conversations did not differ from one another ($p = .43$). Conversely, LPC providers produced more utterances than MPC or HPC providers ($ps < .001$) who also did not differ from one another ($p = .52$).

Table 2 also summarizes the turn-level data. On average, disclosers took 34.30 turns per conversation (Range = 7–78, SD = 15.62, Mdn = 32, Mo = 25) and confederate providers

Table 2. Descriptive information for utterance- and turn-level data by PC condition.

					95% CI for *M*			
	N	*M*	SD	SE	Lower	Upper	Min.	Max.
Discloser utterances								
LPC	75	94.13	27.66	3.19	87.83	100.43	38.00	160.00
MPC	69	110.52	24.32	2.93	104.82	116.22	60.00	167.00
HPC	79	114.01	28.28	3.18	107.81	120.21	39.00	190.00
Total	223	106.25	28.18	1.89	102.53	109.97	38.00	190.00
Provider utterances								
LPC	75	64.95	29.11	3.36	58.35	71.55	9.00	156.00
MPC	69	47.87	22.06	2.66	42.67	53.07	6.00	95.00
HPC	79	50.48	22.06	2.48	45.58	55.38	9.00	96.00
Total	223	54.54	25.67	1.72	51.15	57.93	6.00	156.00
Discloser turns								
LPC	75	32.28	16.09	1.86	28.58	35.98	8.00	78.00
MPC	69	36.25	15.02	1.81	32.64	39.85	7.00	73.00
HPC	79	34.52	15.64	1.76	31.02	38.02	8.00	75.00
Total	223	34.30	15.62	1.05	32.24	36.36	7.00	78.00
Provider turns								
LPC	75	31.76	16.13	1.86	28.05	35.47	7.00	77.00
MPC	69	35.70	15.15	1.82	32.06	39.34	6.00	72.00
HPC	79	34.00	15.79	1.78	30.46	37.54	7.00	75.00
Total	223	33.77	15.72	1.05	31.70	35.85	6.00	77.00

LPC = Low person-centered turns; MPC = Moderate person-entered turns; HPC = High person-centered turns.

took 32.72 turns (Range = 6–77, SD = 15.72, Mdn = 30, Mo = 29) per conversation. Unlike the utterance data, there was no significant between-groups effect on the number of turns as a function of PC for either disclosers, $F(2, 220) = 1.17$, $p = .31$, or providers, $F(2, 220) = 1.14$, $p = .32$. A follow-up analysis of word count (generated with the Linguistic Inquiry and Word Count program; Pennebaker, Booth, Boyd, & Francis, 2015) did, however, suggest that LPC providers used more words per turn ($M = 11.96$, SD = 18.52) than MPC ($M = 5.75$, SD = 6.82), $t(4665) = 15.33$, $p < .001$, $d = .44$, and HPC providers ($M = 6.74$, SD = 9.18), $t(4900) = 12.74$, $p < .001$, $d = .36$. MPC and HPC providers also differed significantly on the word-count variable, $t(5013) = 4.31$, $p < .001$, $d = .12$.

These preliminary analyses showed that while both providers and disclosers had a similar amount of turns throughout the conversation, LPC provider turns were longer than MPC and HPC listener turns. Conversely, when paired with an LPC provider, disclosers talked less compared to disclosers paired with an MPC or HPC provider. These conversational summary data are not in line with message-centered data reflecting either hypothetical PC messages to be evaluated (see Samter & MacGeorge, 2016), or PC-coded written messages produced in response to hypothetical stress scenarios (e.g., MacGeorge & Wilkum, 2012). Message-centered data usually feature HPC messages as containing the most utterances and words compared to MPC or LPC messages. When examining conversations, however, it appears that LPC providers talk more than both MPC and HPC providers. We next turn to our substantive analyses.

Hypothesis 1 and Research Question 1

H1 predicted that conversational PC ratings will correspond with PC-coded turns (i.e., PC-global), such that conversations rated as HPC will have proportionally (and significantly) more turns coded at levels 7 through 9 compared to those rated as MPC (levels 4–6) and LPC (levels 1–3). RQ1 examined the degree of correspondence between all measures of PC.

Analyses for H1 proceeded in two steps. First, after deleting turns with missing data ($n = 228$ turns; mostly due to inaudible speech), we explored the between-groups effect for PC-global as a function of manipulated PC conditions to which confederate providers were randomly assigned. In this analysis, although the between-groups effect, $F(2, 7293) = 1894.49$, $p < .001$, $\eta^2 = .34$, and all pairwise comparisons were significant ($ps < .001$), the range of PC-global values within each of the three PC conditions points to initial evidence that confederate providers did not stay within a single PC level – either a major level (HPC, LPC, MPC) or a sublevel (levels 1–9) – while providing that level of PC comfort.

Second, given that (a) conversations differed in the number of turns and (b) there were significant differences as a function of manipulated PC, we also calculated proportional data; that is, the proportion of turns coded into each of the 9 levels. As seen in Table 3, the largest proportion of turns were coded at level 5 (MPC) for both MPC (96%) and HPC conversations (75%); over half of LPC conversations were coded at an MPC level (51%), with 48% of the utterances at a PC level 3 (LPC). Dependent samples t-tests for PC-global and PC-rated, however, also showed sufficient differences among the three PC conditions (see Tables 1 and 3 for descriptive information): LPC, $t(1835) = 105.42$, $p < .001$, $d = 2.46$; MPC, $t(2126) = 83.63$, $p < .001$, $d = 1.81$; and HPC, $t(1877) = 40.81$, $p < .001$, $d = .94$. Raters consistently rated conversations in line with the PC hierarchy

Table 3. Proportions of confederate speaking turns coded into PC levels 1 through 9.

Confederate condition		1	2	3	4	5	6	7	8	9	1–3	4–6	7–9
LPC	*M*	**0.01**	**0.05**	**0.42**	0.06	0.32	0.13	0.003	–	–	**0.48**	0.51	0.01
	SD	0.03	0.08	0.24	0.08	0.21	0.14	0.01	–	–	0.25	0.24	0.01
MPC	*M*	–	–	0.03	**0.02**	**0.47**	**0.47**	0.01	–	–	0.03	**0.96**	0.01
	SD	–	–	0.09	0.07	0.18	0.19	0.03	–	–	0.09	0.09	0.03
HPC	*M*	–	–	–	–	0.54	0.20	**0.21**	**0.02**	**0.01**	–	0.75	**0.24**
	SD	–	–	–	–	0.19	0.13	0.14	0.04	0.04	–	0.15	0.16
All conversations	*M*	.004	.02	.15	.03	.45	.26	.08	.01	.004	.17	.73	.09
	SD	.02	.05	.24	.06	.21	.21	.13	.03	.02	.27	.25	.15

Dashes indicate that these cell approached 0. Numbers in **bold** indicate proportions of turns that were coded for their relevant PC level. LPC = Low person-centered turns; MPC = Moderate person-entered turns; HPC = High person-centered turns. Columns to the far right contain major PC levels (LPC, MPC, HPC); these values were calculated by collapsing minor levels (e.g., 1–3 for LPC). N = 223 conversations.

even when listener turns did not reflect the manipulated PC-level. Taken together, H1 was partially supported. While conversations were rated in line with the PC hierarchy, conversations coded for PC contained proportionally more MPC than LPC and HPC turns, irrespective of ratings of conversational-level PC (and irrespective of PC condition).

To answer RQ1, we computed zero-order correlations between PC-rated, PC-highest, and PC-focus, as well as each of these variables with both minor and major PC levels. As shown in Table 4, results suggest that the different ways of representing PC in conversations are not equivalent, such that correlation coefficients for the three PC measures and the PC levels varied considerably. A primary reason for this nonequivalence lies in the proportional data presented in Table 3. In particular, LPC conversations are distinguishable from MPC and HPC conversations on the basis of the presence of turns coded at a level 3 or below. Both MPC and HPC conversations, however, contain a preponderance of turns coded at an MPC level (i.e., level 4–6).

Hypotheses 2–3, Research Question 2

H2 predicted that discloser affect improvement is positively associated with the proportion of MPC and HPC messages and negatively associated with the proportion of LPC messages within conversations. H3 predicted that evaluations of (a) supportiveness, (b) expressiveness, and (c) conversation management are positively associated with the proportion of MPC and HPC speech and negatively associated with the proportion of LPC speech in conversations. RQ2 asked whether each minor level of PC was associated with outcomes in line with the major level aggregation.

Table 5 presents zero-order correlations and shows the typical linear function of PC on outcomes (High & Dillard, 2012) when conversations are rated and coded for either highest level or predominant focus. Coded data provide additional support that each outcome is negatively associated with LPC. Coded MPC is associated with each competency outcome but not with affect improvement, and coded HPC is associated with affect improvement and supportiveness. More importantly, patterns of correlations suggest that outcomes are not uniformly associated with major levels when minor levels are considered. Minor levels within LPC show the most consistency, while minor levels within MPC show the most discrepancy. Specifically, the proportion of level-4 messages is negatively associated with all outcomes, and the proportion of level-5 messages is positively associated with all outcomes. These results provide first evidence that researchers who choose to not code minor levels or to collapse across major levels may potentially miss important PC distinctions, at least with respect to MPC. It should be noted, however, that the variability within levels 1, 2, 4, 8, and 9 were considerably lower than the variability in levels 3, 5, 6, and 7 (see Table 3). Because correlations can be attenuated by range restriction, we are more confident in interpretations of associations between major levels and outcomes than between minor levels and outcomes.

When PC is represented at the level of the conversation, we also find support for a positive linear trend, but this finding does not indicate which message components contribute to these outcomes. As an additional test of H2–3 and to answer RQ2, we computed a multivariate regression to control for correlations between the dependent variables, $.31 < r < .69$. In addition, because including all three IVs in the model creates redundancy (and collinearity), we used the percentage of LPC and HPC turns (e.g., proportion of

Table 4. Zero-order correlations between rated PC and proportion of speaking turns coded into minor and major PC levels.

	1	2	3	4	5	6	7	8	9	LPC 1–3	MPC 4–6	HPC 7–9	PC-rated	PC-highest
PC-rated	−.28**	−.39**	−.70**	−.30**	.44**	.17*	.63**	.39**	.25**	−.73**	.43**	.65**	–	
PC-highest	−.14*	−.29**	−.46**	−.28**	.24**	−.06	.62**	.62**	.53**	−.48**	.08	.73**	.69**	–
PC-focus	−.28**	−.35**	−.80**	−.27**	.25**	.59**	.39**	.14*	.19*	−.81**	.63**	.39**	.49**	.34**

*$p < .05$; **$p < .01$. For PC-rated correlations, $N = 189$; for all others $N = 223$ conversations.

Table 5. Zero-order correlations between rated and coded PC for outcomes.

	Affect Improvement	Suportiveness	Conversation Management	Expressiveness
PC-rated	**.17**	**.43**	**.26**	**.27**
Proportion of LPC	**−.19**	**−.39**	**−.17**	**−.25**
Proportion of 1s	*−.09*	**−.15**	*−.11*	**−.17**
Proportion of 2s	**−.14**	**−.30**	**−.16**	**−.21**
Proportion of 3s	**−.17**	**−.35**	**−.15**	**−.22**
Proportion of MPC	*.11*	**.26**	**.13**	**.21**
Proportion of 4s	**−.14**	**−.25**	**−.17**	**−.21**
Proportion of 5s	**.15**	**.35**	**.19**	**.24**
Proportion of 6s	*.02*	*.03*	*.02*	*.07*
Proportion of HPC	**.16**	**.27**	*.08*	*.10*
Proportion of 7s	**.15**	**.25**	*.07*	*.09*
Proportion of 8s	*.06*	**.18**	*.06*	*.07*
Proportion of 9s	**.13**	*.10*	*.05*	*.07*
PC-highest	**.22**	**.37**	**.23**	**.20**
PC-focus	**.17**	**.27**	*.11*	**.17**

LPC = Low person-centered turns; MPC = Moderate person-entered turns; HPC = High person-centered turns. For PC-rated, $N = 189$. For proportional data, all Ns = 223. Correlations in **bold** ($n = 47$, 72%) are statistically significant at $p < .05$. Correlations in *italics* ($n = 18$, 23%) did not reach this conventional threshold.

LPC X 1) only. This decision means that standardized coefficients are interpreted as increase (or decrease) relative to MPC-coded turns; thus, a *beta* coefficient of .10 would mean that for a 1% increase in LPC/HPC, the DV under question increases (or decreases) .10 scale points. Multivariate tests showed that LPC turns are negatively associated with the set of outcomes, $\lambda = .88$, $F(4, 213) = 7.29$, $p < .001$, while HPC turns are unassociated, $\lambda = .97$, $F(4, 213) = 1.89$, $p = .11$. Parameter estimates presented in Table 6 show that as the percent of LPC turns increases, the value of each dependent variable trends downward, though effect sizes are small.

Discussion

To date, the most influential conceptualization of enacted support has been person-centered (PC) emotional support. Although conclusions about the impact of PC are robust, researchers have relied primarily on what Burleson and MacGeorge (2002) called the *message perception paradigm*, an approach that asks participants to imagine a stressful situation and then rate researcher-generated messages on the basis of evaluative criteria, such as helpfulness or supportiveness (Goldsmith et al., 2000). Because support is

Table 6. Regressions for outcomes and PC.

							95.0% CI for *B*		
Outcome	PC	*B*	SE	*β*	*t*	*p*	Lower bound	Upper bound	η_p^2
Affective improvement	LPC	−.006	.003	−.15	−2.01	.05	−.01	.000	.02
	HPC	.008	.006	.10	1.43	.15	−.003	.02	.01
Supportiveness	LPC	−.014	.003	−.34	−4.96	<.001	−.02	−.01	.10
	HPC	.010	.005	.14	2.03	.04	.000	.02	.02
Conversation management	LPC	−.006	.002	−.16	−2.23	.03	−.01	−.001	.02
	HPC	.001	.005	.02	.26	.79	−.01	.01	.00
Expressiveness	LPC	−.009	.003	−.25	−3.46	<.001	−.02	−.004	.05
	HPC	.000	.005	.006	.08	.94	−.01	.01	.00

$N = 223$ conversations. CI = Confidence Interval, created through bootstrapping procedures, resampling set to 10,000. LPC = Low person-centered turns; MPC = Moderate person-entered turns; HPC = High person-centered turns.

usually provided in talk (Goldsmith, 2004) rather than written messages (but see online support; Rains, Brunner, Akers, Pavlich, & Tsetsi, 2016), researchers have moved to examine PC comfort in supportive interactions. Interaction-based studies have usually manipulated PC by training confederate providers to enact either LPC, MPC, or HPC support in brief conversations. The entire conversation is then rated for PC criteria, such as concern or feeling focus (Afifi et al., 2013; High & Solomon, 2014; Jones & Guerrero, 2001; Priem & Solomon, 2015b). Results from these studies align with message-perception research. Compared to conversations rated lower on PC qualities, those rated higher on PC (a) generate higher levels of affect improvement (High & Solomon, 2014); (b) have more durable, positive effects three weeks post-conversation (High & Solomon, 2016); (c) encourage (*vs.* discourage) the exploration of thoughts and feelings which, in turn, influences emotion regulation (Jones & Wirtz, 2006); and (d) can expedite stress recovery (Priem & Solomon, 2015a). Likewise, conversations exhibiting LPC characteristics can exacerbate the stress response and lead to rumination (Afifi et al., 2013).

Compared to message-perception studies, interaction-based studies offer a more ecologically valid analysis of the emotional support process. Nevertheless, decisions to rate conversations rather than messages seem predicated on the notion that these units of analysis generate the same kind of information, and consequently, explain the same kinds of variance in outcomes (e.g., affective improvement). Furthermore, examining the effect of conversational PC ratings on support outcomes does not answer questions regarding the discrete or manifest message features within conversations that contribute to these outcomes. Taken together, we do not yet know whether discrete PC messages map onto PC-ratings in supportive conversations. Our study fills this void. First, we provide a validity test for PC rating data by comparing conversational ratings to message-level coding. Second, we test whether rating and coding data are differentially related to outcomes. We discuss these two goals in more detail next. We then discuss our study's contributions to the literature on person-centered emotional support.

Review of study findings

We tested whether conversations rated for PC characteristics also contain turns coded at that PC level (H1, RQ1). We also examined associations between PC and four support outcomes, namely affective improvement, supportiveness, conversation management, and expressiveness (H2–3, RQ2). Our data consisted of 223 conversations featuring a confederate trained to provide highly person-centered (HPC), moderately person-centered (MPC), or low person-centered (LPC) comfort to a discloser who talked about an emotionally upsetting event. Confederate contributions were coded with an adapted version of the traditional nine-level PC hierarchy (Applegate, 1980; Burleson, 1982; see Figure 1). A subset of these conversations ($n = 189$) were rated on several PC characteristics (e.g., invalidates/validates, judges/empathizes) by trained raters.

Results for H1 and RQ1 showed that even though the three major PC levels differed significantly from one another on the basis of PC ratings, HPC- and LPC-rated conversations contained turns primarily coded into one of the three MPC categories. In both HPC- and LPC-rated conversations, nearly half of all turns were coded into levels 4–6. Interestingly, an HPC conversation does not have to contain many higher-level PC turns at or beyond level 7 to be rated as HPC by an independent evaluator. The average proportion

of HPC turns (levels 7–9) is 24% (see Table 3). Several explanations might account for this finding. First, it is possible that our results are unique to stranger dyads, such that conversations between interlocutors with no relational history are marked by a greater proportion of MPC speech simply because this type of speech is less personal and perhaps more comfortable to produce. Research that attempts to replicate our findings with friends and romantic partners could help empirically verify this account. Second, it is possible that conversations that comprise only HPC speech are unnatural or otherwise less plausible, at least among informal support providers. Experimental research that manipulates conversations for MPC and HPC (and perhaps LPC) content would be useful to examine the degree to which MPC turns are necessary (and/or sufficient) for quality support.

As displayed in Table 5, although there is overlap in the various ways of representing PC, these measures are not equivalent. For instance, a measure such as PC-focus (the highest proportion of turns within any of the nine levels) tends to prioritize MPC because the majority of messages fall into that PC category, whereas a measure that computes the highest PC-turn in conversation tends to emphasize a single PC message, even though that message may be the only message of its PC kind in the entire conversation. Thus, although support outcomes may generate similar findings for the PC variables we utilized here, decisions to rate or code, and how to accomplish either are not only important methodological considerations but also speak to one's conceptualization of person-centered speech. If, say, HPC speech consists of only one relatively low-level HPC utterance among utterances that are otherwise MPC in nature, then researchers may have to rethink how they conceptualize HPC as a conversational vehicle to facilitate emotional change.

Results for H2–3 and RQ2 showed that PC-ratings are linearly associated with affective improvement, supportiveness, conversation management, and expressiveness in expected ways. The PC-coded data largely confirmed this trend for correlations (see Table 5) and regressions (see Table 6). LPC turns were negatively associated with all four outcomes and also negatively predicted these outcomes. HPC turns were positively associated with affective improvement and supportiveness, yet only positively predicted supportiveness when controlling for the presence of LPC turns. In terms of magnitude, LPC turns (levels 1–3) also exerted a stronger impact on outcomes than HPC turns (Table 6). Conversations with increasingly higher proportions of LPC comments were perceived as increasingly less beneficial ($\text{Range}_r = -.17 - -.50$). Whereas conversations with increasingly higher proportions of HPC comments were viewed as increasingly more beneficial, the range was smaller ($\text{Range}_r = 15 - .27$).

Differential outcomes for major PC levels and PC sublevels occurred only for MPC (see Table 5). Positive trends emerged for the aggregate MPC turn-level variable, as well as level 5 and 6 messages, but turns coded at level 4 were uniformly negatively associated with all five outcomes. This result provides first evidence that PC sublevels likely differentially impact the support process and that MPC messages, in particular, may play a more complex role in that process than previously acknowledged. Level 5 and 6 messages explicitly target stressor content, rather than emotional experiences. Level 5 messages contain sympathy statements ("I am so sorry"), and level 6 messages are oriented toward the stress experience and consist of (a) questions to get more information about what happened, (b) nonfeeling-centered explanations ("That test was hard though"), (c) paraphrases ("So are

you saying she was not in town?"), and (d) advice (see online coding manual for more examples). Level 4 messages, on the other hand, draw attention away from the stressor and the feelings associated with that stressor (e.g., "Let's go do something") or include remarks that "everything will work out just fine," yet offer no suggestions how to get there or whether it, in fact, it is realistic. Level 4 messages thus appear to operate much more like LPC messages than MPC messages, at least in terms of the outcomes we examined. This finding also suggests that working with an aggregated MPC level rather than PC-sublevels may obscure the actual meaning disclosers attribute level-4 utterances. Future research should examine whether LPC messages need to be expanded to include level-4 messages. In addition, given that range restriction can attenuate correlations, future work should attend to estimates of variability. It is possible that our data are not representative of conversations more generally, which may have a wider range of levels 1, 2, 4, 8, and 9. If so, estimates of association derived from these data are quite conservative (Thorndike, 1949).

Sketching a first profile of person-centered (PC) conversations

Past message-centered research has emphasized HPC messages as a necessary ingredient of effective emotional support (Afifi et al., 2013; Jones & Wirtz, 2006). Although our data do not provide unequivocal refutation of that claim, they do show that supportive conversations consist largely of MPC speech turns, regardless the conversation-level PC rating. These findings correspond with past message-provision research. In studies that have solicited written supportive messages from participants responding to a hypothetical distressed person, results show most people react in an MPC manner (MacGeorge & Wilkum, 2012; MacGeorge, Gillihan, Samter, & Clark, 2003). Two additional conversational datasets also showed that the bulk of conversational turns consists of MPC comfort (Metts, Backhaus, & Kazoleas, 1995; Tamborini et al., 1993).

The evolution of PC support from a mere message on paper into a skill enacted through a range of supportive messages suggests that HPC conversations need to fulfill an array of functions expressed over a number of interdependent turns that cycle in and out of HPC comfort. PC qualities serve various coping functions. For instance, a message possessing MPC qualities might serve to express condolences or to ask content-related questions about what happened. Once further information about the stressful story is gleaned, HPC messages might serve to acknowledge and reframe the event, whereas LPC messages might serve to tell a speaker how to act or feel about it. As illustration, take the following excerpt, which features a discloser (D) and a listener (L) talking about D's ill grandparent.

Excerpt: Conversation 13 (157 total utterances; Utterance 108–131)

1. L: Well, that's cool (level 6). I mean, you got a family that cares about the fact that you gotta stay busy in college, you know (level 9). And honor that you can't be stressing and everything (level 9).

2. D: I actually definitely stay busy.

3. L: Is it, is it hard and everything like to like, go about your daily business while you're worrying about it and stuff? (level 9)

4. D: I always think about it. But I can do my business, and then I call back home to see what is going on.

5. L: I can't imagine that (level 8).

6. D: It sucks.

7. L: I was gonna say, is it awesome that you are willing to talk (level 9).

8. D: Well it's not a hundred percent bad luck. It's not like I'm planning a funeral. [inaudible]

9. L: No, I don't think I'd be able to just sit here and talk about something (level 7). That can't be easy. (level 7)

10. D: But it was within the last three weeks.

11. L: Is this something that happens often (level 6)? Like is she? (level 6) How long as she been like in the hospital (level 6)?

12. D: She just got sick again a couple of weeks ago. She was in the hospital, uh, for, last year, I think. She had uh, she was in emergency surgery.

As the excerpt shows, HPC messages occur over a number of turns and depend on the discloser's unique responses to the listener's query (e.g., turns 2–3). Specifically, the HPC listener elicited context-specific information about what happened (e.g., turn 11), acknowledged what was felt (e.g., turn 9), and attempted to reframe and contextualize the discloser's thoughts and emotions (e.g., turn 1). Fundamentally, the listener's utterances assisted the discloser in coping with the ill relative and reappraised the event into something more beneficial (i.e., attending to college tasks while staying connected with family). To accomplish this, the listener cycled between MPC and HPC support, suggesting that HPC listeners can, but do not necessarily have to, move into higher levels of the PC hierarchy to fulfill functions associated with HPC comfort.

A related nuance to conversation-based *vis à vis* message-based PC analyses concerns message length. Our preliminary analyses showed that, compared to LPC turns, MPC and HPC turns featured shorter messages, based on both the number of utterances and word count. This finding runs counter to the original hierarchy, which often features HPC messages as two or even three times longer than either MPC or LPC messages (Burleson & Samter, 1985; High & Dillard, 2012; see online coding manual for examples). Two reasons account for the difference. The first reason concerns the modality of support delivery. Message-centered studies direct participants to read and evaluate messages varying in PC, or in the case of message production to write down what they would say to a hypothetical discloser. A near-universal facet of conversations, however, is that turns-at-talk last approximately 1–2 seconds, with the majority of "overlapping speech" containing backchannel responses that serve to encourage extended turns (Levinson & Torreira, 2015). Backchannel responding is, by definition, MPC in nature (level 5, to be specific), and thus is one reason why many of the HPC conversations in our dataset featured a majority of MPC-coded utterances and turns. The second reason concerns the tactics with which providers fulfilled PC functions. LPC messages primarily function to avert or deny the discloser's actions and feelings. A review of the LPC conversations in our data set showed that LPC providers tended to accomplish this goal by engaging in prolonged narratives about their own experiences which have nothing to do with disclosers' emotional experiences.

LPC providers tended to get "off topic," which means that the discloser did not get to explore the upsetting event in talk (see online coding manual, pp. 21).

Considerations when coding conversations for PC

Our findings have two implications when coding for PC in conversations. First, coding for PC on the utterance level requires, at minimum, an intricate understanding of how and in what ways each of the nine PC levels differ from another. Practically, when coding conversational utterances, we found it necessary to simplify the hierarchy by distilling each PC level to its primary action tendency, rather than relying on the compact multi-functional definition Burleson (1982) provided initially for each PC level (see Figure 1). Our revision of the PC hierarchy for coding conversational utterances evolved into a PC manual consisting of an arsenal of illustrative sample utterances for each PC level; we encourage and invite researchers to examine the online manual and add to it (see online coding manual).

Second, scholars working with PC may be unable to identify the multiple PC levels (either major or sublevels), and consequently, the various PC affordances that are embedded in isolated messages and conversational turns when using either one as the unit of analysis. This point is particularly relevant for HPC, and the excerpt presented earlier illustrates this point for conversational data by featuring both MPC and HPC utterances. An example researcher-generated level-9 message used in message-centered work comes from Burleson and Samter (1985):

> I understand how frustrating it is to study for a test and then do pretty bad on it (level 7). It makes you angry and hurt and takes away a lot of self-confidence (level 7). Sometimes you wonder if it's even worth trying (level 6). But it doesn't mean you're dumb or anything like that (level 8). And maybe you've learned what kind of questions the teacher asks so that you can do better on future tests (level 9). Or maybe you know now how the teacher wants you to think about the material (level 9). So, although it's probably hard to look at it this way, maybe you've learned something really important that can help you in the future. (p. 114)

This message would likely be coded as HPC if some aggregate measure is used, yet it contains both MPC and HPC utterances as can be seen by PC levels we added after each message segment. If even a relatively short message contains a mix of MPC and HPC message content, then scholars should be cautious when examining PC in conversational studies. Solely relying on ratings of conversations for PC runs the risk of obscuring potential relations between messages in the PC hierarchy not traditionally believed to have reappraisal potential. After coding individual utterances, we created two aggregate measures that represented the turn-level PC code. Along with our descriptive illustrations, the correlations presented in Table 4 provide evidence that scholars are best advised to both code and rate supportive conversations for PC, even though that is more time intensive.

Future research directions

If MPC utterances comprise the bulk of supportive conversations among lay helpers, regardless the conversation-level PC rating and/or the PC level originally intended to be manipulated, then an important question that emerges for HPC conversations that has not yet been examined is in what ways HPC messages add to effects over and above MPC messages. If HPC conversations consist to a large extent of MPC utterances, then

are HPC messages *necessary* or are MPC messages that feature levels 5 and 6 *sufficient*? If HPC messages are necessary, is there a minimum of HPC utterances within HPC conversations in order for these conversations to be maximally beneficial? These questions can only be examined with coded data, which allow scholars to examine the nuanced influence of HPC acts in a conversation that consists largely of MPC messages. The differences in MPC message turns *vis a vis* HPC turns in HPC conversations or LPC turns in LPC-rated conversations can be captured with the two ways of aggregating PC utterances.

The last point leads to another interesting future research direction. In past conversational studies, HPC conversations were rated as more supportive than both MPC and LPC conversations (High & Solomon, 2014; Jones & Wirtz, 2006). In some studies, conversational participants (High & Solomon, 2014) and participants asked to evaluate a single hypothetical message (Bodie, 2013) have not differentiated between MPC and HPC content. Our findings suggest that HPC and MPC conversations are quite similar on the utterance level. It is unlikely, though not impossible, that a conversation rated as HPC consists *solely* of HPC listener utterances (i.e., levels 7–9), nor is there a logical reason to assume that a "pure" HPC-conversation is necessarily the most beneficial conversation. It would, therefore, be interesting to test how "pure" conversations that consist solely of one major PC level compare to conversations containing MPC-LPC, and MPC-HPC blends. Indeed, none of the conversations in our dataset consisted of one major PC level. Although we would sacrifice ecological validity, exploring these questions by experimentally manipulating conversations and gathering perceptual judgment data might be a plausible initial step to examine these conversational differences.

Framing supportive conversations as conversational reappraisal conversations

MPC messages may play an important role in Burleson and Goldsmith's (1998) conversational reappraisal framework, which proposed that a wide range of PC messages must be embedded in talk in order for a listener to effectively facilitate a discloser's reappraisal. Cognitive reappraisal is a benefit-finding coping strategy that reframes an initially upsetting event so as to alter one's emotional response to it (Shiota & Levenson, 2012). Burleson and Goldsmith (1998) proposed a decision tree of a prototypical reappraisal conversation that reflects the classic two-stage appraisal process. We expanded this decision tree into a conversational roadmap in Figure 2: In the *primary appraisal* stage people assess (a) whether and how the situation is important (goal relevance); (b) whether the situation is commensurate with personal goals (goal congruence); and (c) how much attention one gave this event. *Secondary appraisals* involve an assessment of (d) responsibility; (e) control; (f) emotion- and problem-focused coping potentials; and (g) whether the situation is likely to recur in the future (future expectancy; Ellsworth & Smith, 1988; Smith & Lazarus, 1993).

Applied to supportive conversations, providers assist in reappraisal by encouraging disclosers to reflect on their primary appraisals *first*, followed by an examination of secondary appraisals. Figure 2 shows that the reappraisal conversation begins with an exploration of the discloser's emotional experiences because in order to reassess or reappraise emotions, the discloser first needs to be able to identify what is felt. Likewise, the provider needs to understand these feelings in order to respond effectively with coping options. Once feelings are understood, the provider and the discloser can talk about what can be done about the stress-causing event, which happens in the coping conversation. In order to facilitate discloser reappraisals, the provider may use an array of supportive messages over the

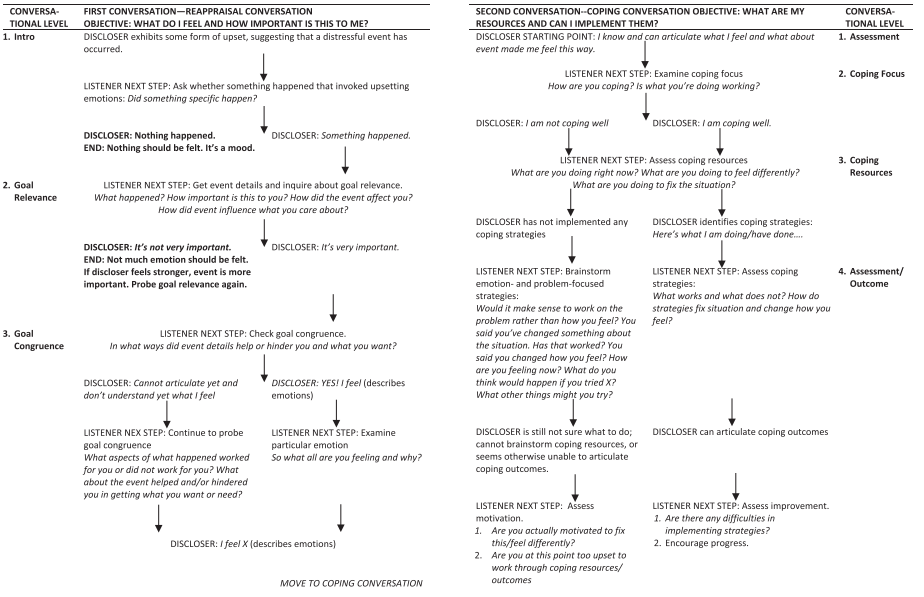

Figure 2. Prototypical facilitative reappraisal conversation proposed by Burleson and Goldsmith (1998). Goal relevance = How important is the event? Goal congruence = In what ways does event negatively or positively influence recipient's needs, wants, and obligations?

course of one or multiple conversations that, per our analyses, are mostly MPC in nature. Perhaps this is why MPC messages might best be conceived as the conversational fulcrum of HPC supportive talk: HPC-rated conversations mostly consist of MPC utterances and swing rarely to HPC utterances. Of course, we do not yet know whether the conversational reappraisal framework forms the theoretical basis for examining how support is effectively enacted in supportive conversations. A nuanced analysis is therefore needed to examine the ways in which MPC messages, as well as LPC and HPC messages, accomplish Burleson and Goldsmith's (1998) prototypical conversation (see Figure 2). This particular point would certainly also require an analysis of naturally occurring conversations, rather than conversations with trained confederates.

Conclusions

If coping with difficult emotions is best understood as a cognitive reappraisal process, then conversations that consist exclusively of HPC utterances might not be the most effective of emotional support conversations. Rather, a conversation with an MPC-HPC blend might work best to assist disclosers in processing difficult emotions. Indeed, the original conceptual definition of a level-9 message is to "help[s] the other gain a perspective on his or her feelings and attempt[s] to help the other see these feelings in relation to a broader context or the feelings of others" (Burleson & Samter, 1985, p. 114). At the message level, this suggests that a support provider must utilize conversational prompts to facilitate disclosures, as well as recognize and acknowledge feelings (level 7) and perhaps provide an explanation for them (level 8). At the conversational level, our data suggest that providers must work at MPC levels prior to moving into (and then out of) HPC comfort.

Our data point to an epistemological misfit between PC-rated conversations and PC-coded conversational utterances. A 10-minute conversation that is globally rated as, say HPC, may, in fact, contain no more than one turn rated at an HPC level. Similarly, while LPC conversations in our dataset contained more LPC turns, these turns were also infrequent. These results suggest a discrepancy between operationalizations of supportive messages that vary in PC and how providers, in our case providers trained to exhibit one PC level, execute their task in supportive talk. Moreover, our data showcased that HPC providers use utterances that (a) are dispersed across multiple turns, (b) fulfill a range of conversational functions (e.g., express listening, acknowledge emotions, offer a new perspective, express sympathy), and (c) are highly dependent on the discloser's response. Understanding the content of messages is important to be sure, but unless we situate those messages in the conversational context in which they occur, we miss important information about how support works in the actual lives of people we want to be able to assist.

Disclosure statement

No potential conflict of interest was reported by the authors.

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