RESPONSIVE LISTENING IN LONG-MARRIED COUPLES: A PSYCHOLINGUISTIC PERSPECTIVE

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ABSTRACT: Positive and responsive listening behavior benefits marital satisfaction, but previous reports have examined emotionally positive behavior confounded with responsive behavior, and focused primarily on younger marriages. Psycholinguistic views of listening suggest that *responsive* listening is distinct from emotionally *positive* listening. The former may change with an aging relationship, while the latter is unlikely to do so. Long-married couples share extensive common ground about recurrent conflicts, reducing the need for some listening behaviors. We observed 79 younger and older married couples, happily and unhappily married, discussing conflicts. We coded listening behaviors indicative of attention and comprehension (responsiveness) as well as those expressing emotions. We expected that older married couples would display lower frequencies of responsive listening behaviors than middle-aged couples. Results provide conditional support for this hypothesis. Implications for research on marital communication and aging are discussed.

Is emotionally positive and responsive listening one of the keys to successful conflict resolution in marriage, and the subsequent maintenance of high marital satisfaction? Common sense and many empirical findings suggest that this is the case. Positive and responsive listening is more characteristic of happily married than of unhappily married couples, and the

withholding of listener responses, sometimes called "stonewalling," is associated with decreasing marital satisfaction and an increased likelihood of marital dissolution over time (Gottman & Levenson, 1992; Gottman, Markman, & Notarius, 1977). However, these findings are drawn from observations of younger couples discussing relatively new conflicts. Both rates of listening behavior and the associated consequences could change as couples get older, particularly because the relationship is older (e.g., Sillars & Zietlow, 1993). Below, we first outline two perspectives on listening behavior in older and longer-married couples, one characterizing much of the literature on marital conflict, and the other drawn from psycholinguistic views of listening. Both perspectives consider the same specific behaviors, but ultimately generate different predictions about changes in listening behavior over time. Finally, we present the results of a study exploring two classes of listening behaviors observed during conflict discussions between middle-aged and elderly spouses.

Listening Is a Gestalt Response to What the Speaker Is Saying

From the perspective of coding systems designed to characterize marital conflict conversations, listening functions as a gestalt response to the speaker's utterance, to which the speaker in turn may react. Two features of this perspective are important. First, listener responses are characterized by a gestalt emotional tone. This gestalt incorporates behaviors like emotional facial expressions, backchannel vocalizations like "mm-mmm," nodding, postural movements like leaning forward, and other behaviors which listeners display in conversation. The assumption is that the overall presence or absence of such signals reflects positive, neutral, or negative listening (Gottman, 1989; Gottman, Markman, & Notarius, 1977). Thus, emotionally positive listening means both the presence of positive emotional facial expressions and the presence of attentional cues such as frequent eye contact and nodding. Emotionally positive listening confounds positive emotion and signals of attention, a point to which we return later. Similarly, emotionally negative listening confounds the absence of attentional cues and the presence of a negative emotional facial expression. This gestalt view of listening characterizes findings on marital conflict quite well (see Gottman & Krokoff, 1989; Gottman & Levenson, 1988; 1992). Lower rates of attentional cues and the presence of negative emotional expressions are associated with increased negative affect during the conflict and with lower marital satisfaction (see Gottman & Krokoff, 1989; Gottman & Levenson, 1988). But addressing the attentional cues and emotional expressions together

leaves an open question; namely, whether some behaviors are more important than others for associations between listening and marital behavior or satisfaction.

The second important aspect of this perspective on listening behavior is that listening is a response to the speaker's concurrent utterance; that speaking "drives" listening. Again, this receives empirical support from research on marital conflict. In fact, the withholding of listening responses may be the listeners' response to intensely emotionally negative speaking behavior (Gottman & Levenson, 1988). Of course, speakers also react to listener's behaviors; for example, a speaker who receives too few listening responses may escalate in negativity (Gottman et al., 1977). This produces even less responsiveness from the listener and sparks a downward cycle of negative reciprocity (Gottman & Levenson, 1988; Levenson & Gottman, 1983).

From this perspective, age is unlikely to result in changes in listening behavior. Listening behavior functions as a gestalt to communicate support and positive affect (or not), and these functions remain constant regardless of time in a marriage.

Listening Is Differentiated and Historically Contingent

Psycholinguistic perspectives offer a different view, drawn from different conversational contexts. First, listening behaviors are differentiated, with different behaviors serving different functions. Second, listening behaviors may be partly influenced by historical contexts in terms of past experiences and knowledge that conversational partners share.

Different Behaviors Do Different Things. Listeners have to do several things (Bavelas, Coates, & Johnson, 1995; Clark, 1996). They have to provide evidence to speakers that they are attending to what the speaker says and that they understand the speakers' meaning. Listeners also have to respond to that meaning, in part by demonstrating appropriate and relevant emotion. Behaviors like non-committal nodding, saying "mm-mmm," and maintaining eye contact, which Bavelas and her colleagues label 'generic' behaviors, serve the first two functions quite well. Emotional facial expressions, in contrast, play a larger role in the third function and are termed "specific" behaviors. Put differently, nodding and maintaining eye contact are generic behaviors which say to the speaker "I see, I understand, go on," while smiling, a specific behavior, says "Yes, I agree and that makes me feel happy." Specific listening behaviors also include signals like motor

mimicry, but in the present paper we focus on emotional facial expressions (Bavelas, Black, Lemery, & Mullett, 1986).

Historical Contexts or Shared Knowledge. Time in a conversation or, by extension, in a relationship may change the threshold for evidence of general comprehension. More familiar topics and more shared background can reduce the strength of evidence speakers require from their listeners in order to proceed in a conversation (see Clark, 1996; Clark & Schaeffer, 1989). People who know each other communicate differently than those who do not, by using rapid topic shifts, asking fewer questions, and using privately developed expressions (Clark & Schaefer, 1987; Fleming & Darley, 1991; Hornstein, 1985; Kent, Davis, & Shapiro, 1981; Planalp, 1993). So, conversation proceeds more efficiently with familiar partners, although listening behaviors were not a particular focus of these studies. It is not just familiarity of the partner—familiarity of topics is important for conversing more efficiently (Schober & Carstensen, 1997). Thus, generic listener responses serve a function that is less important when conversational partners share extensive background knowledge about both topic and each other.

Specific listener behaviors are different. Because they function like conversational contributions, giving the appropriate emotional response at the appropriate time (see Bavelas et al., 1995), shared background knowledge cannot reduce the number of such responses required or render them superfluous. Positive emotional expressions can reassure a spouse and provide support even during a disagreement, while negative expressions can do the opposite.

This leads to two predictions about listening behavior in shorter-versus longer-term marriages. First, spouses in longer-term marriages may show lower frequencies than spouses in shorter-term marriages of the generic listening behaviors that provide evidence of attention and comprehension, even when speaker behaviors do not change. No differences in frequencies or consequences of specific listening behaviors are expected.

What Is Known About Age Changes in Conversation?

Age is associated with differences in conversational behavior, whether the behavior of the older person themselves is at stake (Giles, Coupland, Coupland, Williams, & Nussbaum, 1992; Gold, Arbuckle, & Andres, 1994) or the behavior of others towards the older speakers is the central issue (Adelman, Greene, & Charon, 1991; Giles et al., 1992; Montepare, Steinberg, & Rosenberg, 1992; Pasupathi, Carstensen, & Tsai, 1995). However, studies

of age differences in communication with familiar partners, such as spouses, are rare (Nussbaum, Hummert, Williams, & Harwood, 1996; Sillers & Zietlow, 1993). Existing literature concentrates on intergenerational communication, often between strangers.

Studies of marital interaction suggest both stability and change. Older couples were more affectionate as speakers during marital conflict conversations, but also appeared less interested (Carstensen, Gottman, & Levenson, 1995). Older and middle-aged couples expressed similar gestalt emotion *as listeners* and the relation between marital satisfaction and listening was equivalent for couples of all ages (Carstensen et al., 1995). But other studies have shown differences. Older married couples discussing past vacations produced lower rates of one type of generic listening signal, vocal backchannels ("mm-mmm") relative to younger married couples (Gould & Dixon, 1993). As only a type of generic signal was examined, older couples could have been more familiar with their vacations, thus producing fewer listening signals. In sum, existing evidence suggests both stability and change in listening, but no study has addressed listening behavior from a differentiated view.

In the present study, we examined listening behaviors during conflict conversations within a subset of the elderly and middle-aged couples originally recruited by Levenson, Carstensen, and Gottman (see Carstensen et al., 1995; Levenson, Carstensen, & Gottman, 1993; 1994). Half of the sample was happily married, and half unhappily married, equally distributed across age groups. The conflict conversations were coded for listening behavior using the Rapid Couples Interaction Scoring System (RCISS; Krokoff, Gottman, & Hass, 1989) which allows for the separate coding of listening behaviors and includes both generic and specific behaviors. Further, RCISS provides simultaneous coding of speakers' behavior, allowing listener behavior to be viewed in the context of speaker behavior during the same interaction.

Our hypotheses revolved around two questions: First, is listening behavior general or specific? Marital interaction perspectives predict a single dimension underlying all listening behaviors. Psycholinguistic perspectives predict at least two dimensions, generic and specific, in listening behaviors. Second, how does listening behavior differ across couples of differing age and marital satisfaction? Marital interaction perspectives suggest differences in listening by satisfaction, but not by age. Psycholinguistic perspectives suggest age differences in generic listening, and marital satisfaction differences in specific listening behaviors. Finally, though not a focus of our project, we did expect to see spouse differences in behavior. Prior studies have found that women tend to express more negative emotion

during conflict conversations (e.g., Gottman & Levenson, 1988). Thus, we expected that spouse differences might appear in the specific listening behaviors, but not necessarily in the generic listening behaviors.

Method

Subjects

The recruiting procedure for the larger project served to construct a sample of 156 couples that was representative of the Berkeley/Oakland area of California. During recruitment, marital satisfaction was assessed using the Locke-Wallace inventory (Locke & Wallace, 1959), to ensure equal numbers of happily and unhappily married couples across age groups. The procedure is described in detail elsewhere (Levenson et al., 1993). Eighty couples were selected randomly from each marital satisfaction by age cell for the present study, but one couple was excluded because their listening behavior could not be coded reliably. The selected couples were predominantly Christian (55%), European-American (93%), and white collar (78%). Selected couples did not differ from those not included in terms of length of marriage, marital satisfaction, years of education, or the severity of the conflicts discussed ($Fs < 1$). Twenty unhappy elderly couples, twenty happy elderly couples, twenty unhappy middle-aged couples, and nineteen happy middle-aged couples took part. Across both age groups and both spouses, the couples classified as happily married had an average Locke-Wallace score of 138.3 ($SD = 8.3$), while those classified as unhappily married had an average score of 106.4 ($SD = 15.1$). Assignment to marital satisfaction groups was based on the within-age group median of the couple's average score (across husband and wife) on the Locke-Wallace marital satisfaction inventory, as spouses' marital satisfaction scores are highly correlated in this sample ($r = .78$, $p < .01$).[1] Table 1 reports length of marriage, education, and scores on the Locke-Wallace marital satisfaction inventory, separately for each age and marital satisfaction cell.

Procedure

The procedure used has been employed in many prior studies and described in some detail elsewhere (see Levenson & Gottman, 1983; Levenson et al., 1993). Couples arrived at the laboratory having not seen one another for approximately eight hours. They first engaged in a fifteen minute conversation about the events of the day. Afterwards, using a combina-

tion of a conflict topics questionnaire and interviewer-facilitated deliberation, they selected a current and important conflict topic for discussion. Couples then conversed for fifteen minutes about the chosen conflict. The conflict conversations were transcribed, and the interactions were coded using RCISS (Krokoff et al., 1989).

Measures

RCISS. RCISS is a behavioral coding system designed to capture verbal and non-verbal behaviors in marital conflict conversations. Speech turns, or everything spoken by one spouse before the other spouse begins speaking, are the units for coding. The system targets conflict-structure and emotional valence of the spoken portion of the conflict conversation, as well as several specific listener behaviors. This allows for the separate examination of speaking and listening, as well as exploring various types of listening behavior. There were no age or satisfaction differences in the number of speaking turns couples produced ($Fs < 1$, $M = 87.5$, $SD = 28.7$). Turns did vary in length and, for long turns, coders gave the code reflecting the modal behavior pattern.

Speaker behavior in RCISS. A spouse's utterance is first categorized as either emotionally positive or emotionally negative. Speech turns are subsequently coded for their structural contribution to the conflict—that is, whether they add to the conflict agenda, respond to a partner's assertions, or provide emotional support (or not). We computed six scores per spouse based on the a priori theoretical construction of the RCISS system, reflecting positive and negative agenda building, positive and negative response to the other spouse's agenda building, and positive and negative emotional repair and maintenance (see Krokoff et al., 1989). These scores were used to assess whether observed differences in listening were accounted for by similar differences in speaking.

Listening behavior in RCISS. For each speech turn, the listening spouse's behavior was also coded. Coders indicated the presence or absence of three listening signals: eye contact, non-affect-related facial movement, and backchannels. They also coded the facial expression of the listener as emotionally positive or negative. Codes for listener behavior are normally collapsed into positive (presence of listening signals and positive facial expression) or negative (absence of listening signals and negative facial expression) and the resulting scores confound the presence or absence of backchannels, eye contact, and facial movement with the presence of posi-

TABLE 1

Sample Characteristics

| | Middle-aged couples | | Elderly couples | |
	Happy	Unhappy	Happy	Unhappy
Wife's age	43.5 (2.8)	43.4 (3.0)	62.3 (2.4)	62.5 (3.8)
Husband's age	44.4 (3.0)	45.1 (3.1)	63.6 (2.9)	63.7 (2.7)
Wife's marital satis-				
faction	135.5 (10.7)	107.1 (17.0)	141.3 (9.6)	105.8 (19.1)
Husband's marital				
satisfaction	137.6 (11.0)	100.5 (17.5)	139.0 (11.3)	112.4 (17.9)
Wife's education	16.2 (2.6)	15.7 (2.4)	15.1 (2.9)	15.2 (2.4)
Husband's education	16.4 (1.9)	16.6 (2.9)	17.9 (2.6)	17.0 (2.4)
Wife's speaking turns	84.2 (31.1)	90.5 (22.9)	87.2 (32.3)	89.1 (29.4)
Husband's speaking				
turns	84.1 (34.4)	90.7 (22.7)	87.5 (32.1)	88.9 (29.2)
Length of marriage	21.3 (4.0)	21.4 (3.4)	39.5 (3.4)	40.2 (3.3)

Note. Marital satisfaction as reported on the Locke-Wallace Marital Satisfaction Inventory. Education, Age, and Length of Marriage are reported in terms of years. Standard deviations for all variables are reported in parentheses.

tive or negative facial expressions. We instead computed a frequency score for each listening code by dividing by the total number of speech turns, indicating the frequency with which a behavior was present over the couple's conflict conversation.

Reliability. A team of coders was first trained to recognize RCISS listening and speaking behaviors with two couples from previous studies. Following training, weekly discussions of coding helped to maintain adequate reliability. Two coders scored 20 of the couples for reliability calculations, and the remainder were scored by only one coder. Reliability scoring was distributed throughout the coding period. Proportions of agreement and corresponding kappa coefficients for each listening category (the valence of the facial expression was treated as a three-part category: negative, positive, or not scored) ranged from .67 to .94 (κ's from .34 to .88) as shown in Table 2. Intra-couple variability was characterized by high consensus. Across all couples and all scale scores, including those for speakers and listeners, a Pearson r was computed between original and reliability coders. This correlation was .90 for husband behaviors and .93 for wife behaviors.

TABLE 2

Reliability of Subscales on RCISS Scores

| | Agreement | | | |
RCISS Scale	Wives		Husbands	
	%	κ	%	κ
Presence/absence of eye contact	.90 (.13)	.80	.87 (.09)	.74
Presence/absence of facial movement	.69 (.10)	.38	.67 (.05)	.34
Presence/absence of backchannels	.94 (.11)	.88	.94 (.16)	.88
Positive or negative facial expression	.86 (.09)	.72	.87 (.14)	.74

Note. The table reports average proportions of agreement (standard deviations) and κ's calculated across couples.

Results

The results section has three components. The first section reports a factor analysis of RCISS listener codes supporting a differentiated view of listener behaviors. The listening behavior scores used in the remainder of the paper were computed based on this analysis. The second section reports results for age, spouse, and marital satisfaction effects on the new indicators of listener behavior. The third section reports analyses of covariance addressing some possible explanations for an observed interaction effect.

Are Listening Behaviors General or Specific?

We conducted a factor analysis of the RCISS behavior scores for both husbands' and wives' listening behavior using principle components extraction, and both varimax and oblique rotations. Table 3 presents the results of the varimax analysis. Four factors with eigenvalues greater than 1 could be extracted, accounting for a total of 81% of the variance in listening behaviors. Factor loadings were similar regardless of rotation, and the highest interfactor correlation produced by an oblique rotation was .25, between the first and fourth factor. As shown in Table 3, Factor 1 consisted of backchannels and eye contact, Factor 2 was comprised of positive emotional facial expressions, Factor 3 consisted of negative emotional facial expressions, and Factor 4 concerned non-emotional facial movement. These results nicely support the idea that generic listening signals like

TABLE 3

Factor Analysis of RCISS Behavior Codes

Coded behaviors	Factor 1	Factor 2	Factor 3	Factor 4
Wife's behaviors				
Eye contact	.81	—	—	—
Facial movement	.33	—	—	.86
Backchannels	.88	—	—	—
Positive facial expression	—	.90	—	—
Negative facial expression	—	—	.92	—
Husband's behaviors				
Eye contact	.67	—	—	—
Facial movement	—	—	—	.93
Backchannels	.83	—	—	—
Positive facial expression	—	.89	—	—
Negative facial expression	—	.31	.90	—
Factor analytic results				
Eigenvalue	3.5	1.9	1.7	1.1
% variance accounted for	34.7	18.7	16.7	10.8

Note. Only factor loadings greater than .30 are displayed.

TABLE 4

Mean RCISS Listening Scores (standard deviations) by Spouse, Marital Satisfaction, and Age Group

	Generic	Negative expression	Positive expression
Middle-aged			
Unsatisfied			
Husbands	.67 (.13)	.06 (.06)	.14 (.15)
Wives	.66 (.14)	.12 (.14)	.11 (.08)
Satisfied			
Husbands	.75 (.11)	.02 (.04)	.17 (.13)
Wives	.78 (.12)	.04 (.10)	.21 (.14)
Elderly			
Unsatisfied			
Husbands	.71 (.12)	.05 (.07)	.13 (.14)
Wives	.67 (.19)	.08 (.11)	.13 (.14)
Satisfied			
Husbands	.65 (.15)	.02 (.03)	.16 (.18)
Wives	.67 (.14)	.03 (.05)	.17 (.15)

backchannels and eye contact are distinct from emotional facial expressions. Based on these results, we computed three listening scores for each spouse, yielding six listening scores for the couple. One score, for 'generic' listening behaviors, was comprised of the average frequency of backchannels and eye contact (listener engagement). The other two scores represented 'specific' behaviors. These were the frequency of negative facial expressions and the frequency of positive facial expressions. Table 4 presents means and standard deviations for these scores.

We excluded facial movement from further analyses due to its low reliability, relatively smaller proportion of variance (11%), and its ambiguous factor loadings. Computing the main analyses with facial movement included as a separate listening behavior does not result in changes in any of the findings reported.

Listening Behavior in Middle-Aged and Older Marriages

Using the scores described above, we tested age, marital satisfaction, and spouse effects on listening behaviors (thus the couple was the unit of analysis). We did so in three separate ANOVAs with age and marital satisfaction as between-subjects factors, and spouse as a within-subjects factor. Separate analyses were employed because the behaviors identified above appeared relatively independent of one another, and because we had specific a priori predictions focused around these behaviors. An ANOVA approach to the data was chosen because of the bimodal and non-overlapping distribution of age in our sample. Employing age and marital satisfaction as continuous variables with regression techniques shows similar results.

Listener engagement. We expected a main effect of age on generic listening signals, with older couples exhibiting such behaviors less frequently. Contrary to predictions, there was no main effect of age on generic listening signals (F (1, 75) = 1.8, $p > .19$). There was also no main effect of marital satisfaction on these listener behaviors (F (1, 75) = 1.4, $p > .24$).

However, an age by satisfaction interaction for generic listening signals was present (F (1, 75) = 5.2, $p < .03$). Based on an inspection of the
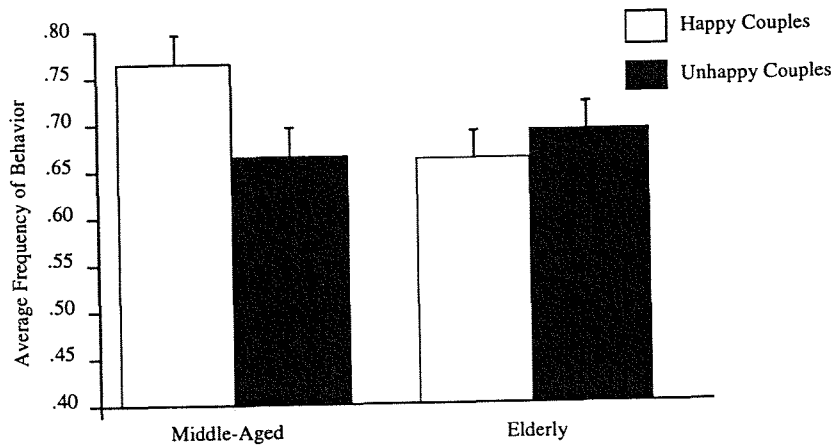
Figure 1. Average frequency of generic listening behaviors (averaged across spouses) as a function of couple's age and marital satisfaction. Error bars indicate the standard error of the mean.

means, we tested the simple effect of age within marital satisfaction category. Age differences in generic listening behaviors were evident for happy couples, with older couples displaying fewer behaviors than middle-aged couples (F (1, 75) = 6.1, $p < .01$). For unhappy couples, there was no such difference ($F < 1$). As shown in Figure 1, happy older couples displayed fewer generic listening behaviors than happy middle-aged couples, despite reporting marital satisfaction somewhat higher than that of the middle-aged happy couples. As can also be seen in Figure 1, for older couples, there is virtually no difference in the frequency of generic listening signals across happily and unhappily married couples.

There were no effects of spouse, interactions of spouse with age, or interactions of spouse with age and satisfaction ($Fs < 1$). A marginal interaction between spouse and satisfaction was evident (F (1, 75) = 3.2, $p < .08$). Inspection of the cell means suggested that wives' generic listening behaviors discriminated marital satisfaction better than husband's behaviors. Happy wives gave more generic listening behaviors ($M = .72$, $SD = .14$) than unhappy wives ($M = .67$, $SD = .17$). This was not the case for happy husbands ($M = .69$, $SD = .14$) compared to unhappy husbands ($M = .69$, $SD = .12$).

Negative emotional facial expressions. We expected that emotional facial expressions (specific listening behaviors) would be related to marital satisfaction, and possibly to spouse, but not age. The results showed a main effect of marital satisfaction on the frequency of negative emotional

expressions, with unhappy couples displaying more negative expressions (F (1, 75) = 8.8, $p < .01$). A main effect for spouse (F (1, 75) = 11.6, $p < .01$) was also evident, and wives displayed more negative emotional expressions than husbands. A marginal interaction of spouse and satisfaction (F (1, 75) = 3.5, $p < .07$) suggested that, as above, wives' behavior discriminated marital satisfaction more than husbands' behavior. Unhappy wives displayed more frequent negative expressions when listening ($M = .10$, $SD = .13$) than happy wives ($M = .03$, $SD = .08$). This was less the case for unhappy husbands ($M = .05$, $SD = .07$) compared to happy husbands ($M = .02$, $SD = .04$). There were no effects of age, or interactions involving age, on negative emotional facial expressions ($Fs < 1.5$).

Positive emotional facial expressions. For positive emotional facial expressions, no effects of age, spouse, or interactions involving these effects attained statistical significance (Fs (1, 75) < 2.5, $ps > .10$). The effect of satisfaction (F (1, 75) = 2.8, $p < .10$) was marginally evident and, as expected, happy couples displayed somewhat more frequent positive facial expressions than unhappy couples.

Explaining the Age by Satisfaction Interaction

Above, we observed an age by satisfaction interaction in listener engagement. We would like to argue that this interaction reflects differing levels of need for the listener to demonstrate comprehension and attention, based on increased familiarity with the conflict topic in long-married couples. However, a much more obvious explanation is that age differences in *speaking* behavior among happily married couples account for this effect. A second possible explanation involves differences in the severity of conflicts discussed by older and younger couples of differing marital satisfaction. Below, we consider these possibilities.

Speaking behavior as an explanation. Two aspects of speaker behavior are considered here. First, as noted earlier, previous work has related the absence of listener behavior to the presence of exceptionally emotionally negative speaker behavior. It might also be argued that different types of contributions to the conflict conversation would elicit different levels of listener engagement. We employed the RCISS speaker scores to test whether these older happy couples differed in their speaking behavior. Second, in a prior study assessing the entire parent sample, older couples expressed less interest as speakers (Carstensen et al., 1995), and this could have produced less interested listeners.

We conducted a MANOVA of all RCISS speaking scores (as described in the Methods section), examining age, marital satisfaction, and spouse effects on speaking behavior. There was no significant age effect ($F(6, 70) = 1.2$, $p > .30$), and no interaction between age and satisfaction (F's < 1). Spouse effects ($F (6, 70) = 2.7$, $p < .05$), satisfaction effects ($F (6, 70) = 3.8$, $p < .005$), and interactions between spouse and satisfaction ($F (6, 70) = 3.3$, $p < .01$), all consistent with a wealth of earlier work (e.g., Gottman & Levenson, 1992), support the validity of the coding. Unhappy marriages were characterized by more emotionally negative speaking and less responsive speaking, wives tended to display more negative behavior than husbands, and wives' behavior differentiated unhappy and happy marriages from one another more effectively than husbands' behavior. These results do not suggest that speaker behavior could account for the interaction effect, and including these speaker variables as covariates does not change the reported interaction.

The expression of interest may be particularly important in eliciting responsive behavior from listeners, and older couples in the parent sample displayed less interest overall as speakers (Carstensen et al., 1995). Interest was measured by coding the frequency with which husbands and wives displayed interest when speaking during the conflicts conversation, and were drawn from the Specific Affect (SPAFF) coding system employed in a prior study on the larger sample of couples (see Carstensen et al., 1995, for details). This analysis represents a more specific way of contextualizing listener engagement in terms of speaker behavior. However, including interest scores from this prior study as covariates did not account for the age by satisfaction interaction.

Conflict severity as an explanation. Finally, elderly couples reported less severe conflicts in the original sample (Levenson et al., 1993), and perhaps lower rates of generic listening behaviors reflect lower conflict severity, particularly for the happy older couples. Including conflict severity ratings as covariates, however, also does not change any of the results reported above.

Discussion

In this study, we explored listening behavior in older and middle-aged married couples discussing conflicts in their marriage. Our findings suggest that listening behaviors cannot be viewed in terms of a single, global dimension. We found evidence for a generic listening behavior factor, and

also for separate and independent factors reflecting positive emotional expressions and negative emotional expressions. These different types of listener behavior showed different relationships with age and satisfaction. Positive emotional expressions showed relatively little differentiation across couples of different ages, and across spouses. Such expressions only marginally differed across couples of different marital satisfaction. Negative emotional expressions distinguished between happy and unhappy couples, and between wives and husbands, but did not vary as a function of age. Finally, generic listening signals differed in happy couples of different ages, with older couples displaying lower rates of generic listening behaviors. This was not true in unhappy couples.

These findings are generally, though not completely, consistent with a psycholinguistic perspective on listening applied to the context of marital conflict in aging marriages. Such a perspective suggests that there are at least two types of listening behaviors, and that time in a relationship has different implications for different types of listening behavior. As conflicts become more and more familiar, the listening spouse in a conflict conversation must provide less evidence for having heard and understood the speaking spouse's statements. Thus, generic listening behaviors are expected to decrease in frequency over time. Further, such decreases were not expected to be associated with concomitant decreases in marital satisfaction. The present data confirm these expectations, but only for happily married couples. Happy older couples displayed no more generic listening signals than unhappy older couples, as shown in Figure 1. They did display significantly fewer of such behaviors than happy middle-aged couples.

Our data do not suggest that all older couples display lower rates of generic signals in general, but do suggest that this is the case for older happy couples. First, how can happy older couples be happy if they are using lower rates of generic signals? It may be that when happy older couples avoid eye contact and do not backchannel, they actually avoid escalating a conflict. An alternative perspective is that a lack of eye contact or backchannels for an older happy couple just carries little meaning. If I am sure my spouse knows which problem I am talking about, and what I think about it, I simply do not need to see him nod vigorously or hear his "mm-mmm."

Second, why was there no age difference in generic listening behaviors for unhappy couples? There are two possible explanations for this. First, at least some minimal level of generic listening signals will always be required in coordinating conversation (Clark, 1996). Perhaps unhappy couples are giving the minimum level of generic listening behavior required to carry forth a conversation. Second, it may be that older unhappy couples

continue to develop novel conflicts, such that their conflict topics were no more familiar than those chosen by middle-aged couples. If this were the case, then we could expect that their rates of generic listening signals would not change (see also Schober & Carstensen, 1997).

The decomposition of listening behavior into three facets, one reflecting general responsiveness and the other two reflecting the expression of positive or negative emotion, also proved useful in understanding the relation of marital satisfaction and listening behavior. Differences in listening behavior for unhappily and happily married couples were primarily reflected in emotionally negative features of listening, rather than to listener behavior in general. It may be useful to focus specifically on emotional features of listening, rather than more general signals of responsiveness, in examining the way that couples negotiate conflicts. Such a perspective echoes the views of Gottman (1994) on conversations about marital conflict more generally. Gottman and colleagues have long argued that the expression of positive and negative affect during marital conflict conversations, and the ratio of positive to negative emotion expressed, is the key factor in predicting marital satisfaction and marital dissolution.

What Our Findings Suggest About Aging

Overall, the picture of late life marriage emerging from this and other studies is quite positive, with implications of both stability and change (Carstensen et al., 1995; Levenson et al., 1993; Sillars & Zietlow, 1993). Our findings are no exception; the present study suggests both similarities and differences among elderly and middle-aged couples. We did find stability in the expression of specific emotions, consistent with the expectation derived from psycholinguistic views. A listener's negative emotional expression functions like saying something negative, and the amount of time in a relationship is unlikely to change the rate or implications of making this kind of non-verbal "statement." Interestingly, this finding is also consistent with laboratory work on age-related stability in facial emotional expression (Levenson, Carstensen, Friesen, & Ekman, 1991; Malatesta, Izard, Culver, & Nicolich, 1987; but see also Malatesta-Magai, Jonas, Shapard, & Culver, 1992), though inconsistent with findings that older adults report being less emotionally expressive (Gross, Carstensen, Pasupathi, Tsai, Gottestam, & Hsu, 1997).

One way to interpret the difference in generic listening behavior among happily married couples is that behaviors which at one age provoke negative affect, like a lack of generic listening signals (see Gottman & Levenson, 1988; Krokoff et al., 1989), no longer do so in later life. This is consistent with age-related increases in the ability to regulate emotion by reconstruing or viewing an event, or in this case a spouse's behavior, differently (see Carstensen, Gross, & Fung, 1997). In fact, such a reconstrual may allow spouses to reduce their generic listening signals and to turn some energy towards regulating their emotional state (see Gottman & Levenson, 1988, on stonewalling). In general, older couples may deemphasize marital conflict areas in favor of communal themes and shared identities (Sillars & Zietlow, 1993). An emotion-regulation explanation is perfectly consistent with psycholinguistic perspectives on the building up of common ground and the function of listening behavior in doing so. For the emotionally laden topics of marital conflict, discussions may demand a high degree of evidence from the listening spouse that the speaking spouse is being heard, understood, and accepted. Building enough common ground to lower this evidence threshold may take years. For happy couples, too little, early, may be problematic, while too little, later, may be sufficient.

Psycholinguistics and Social Interaction

Finally, the present findings suggest that psycholinguistic perspectives on communicative behavior, often derived from stranger-interactions in laboratory settings, can be applied to research on conversation with familiar partners with useful results. First, our factor analytic results were consistent with Bavelas and colleagues' (1995) ideas about generic and specific listening signals. Further, these findings suggest that the role played by listener signals may depend on the length of the relationship between speaker and listener as well as the immediate conversational context. Finally, although these views of listener behavior were not developed from work on interactions between familiar partners, they proved extremely useful in making sense of marital conflict interactions. As more fine-grained approaches to non-verbal communication become available, these may also prove useful to apply to the area of marital interaction research and in work on communication and aging.

Spouses

As in much prior work on marital interaction (Gottman & Levenson, 1992), wives tended to display more negative emotion and their behavior was more diagnostic of marital satisfaction than the behavior of husbands. These findings did not change with age, suggesting that the role of women as initiators of conflict and "emotional barometers" of the couple does not

change with age, cohort, or time in the relationship (see also Sillars & Zietlow, 1993, regarding sex roles in long-term marriages).

Limitations

There were several limitations in the present study. The reliability of the RCISS coding was suboptimal, particularly for facial emotional expressions. Employing a well-validated system developed for coding couples' interactions offered several benefits, but the RCISS system was not originally intended to capture all facets of listener behavior, and there may have been many aspects of listener behavior that we did not address. Further, the degree to which generic and specific behaviors represent truly separate facets of listening is debatable, and has not been resolved in the area of psycholinguistics more broadly. Our factor analytic results imply that specific behaviors may be best viewed uniquely from one another. At a minimum, positive and negative dimensions are important distinctions in the behaviors we observed.

Our sample was cross-sectional; hence, any effects can be due to cohort, age of marriage, or age of participants. Cohort effects would need to be quite selective, given the relatively few differences observed in marital interaction in this study or other studies. Distinguishing between the impacts of the participants' age, and the 'age' of the marriage is not possible in our sample ($r = .97$). Although we have framed the findings in terms of age of marriage (and familiarity of conflicts), it could be that age of the participants is the relevant factor. Some evidence speaks against this possibility. First, the observed age effect was present only for happily married couples, speaking against a simple effect of age of participants. Second, it is unclear what explanation due to age of participants would selectively influence only some types of listening behavior. However, this remains a confound not addressable in the present study.

Unfortunately, it would be very difficult to avoid this confound without studying quite unusual marriages, such as first-time marriages in late life. But there are alternative study designs which would approximate disentangling length of relationship from age of spouses. A design permitting comparisons of the same couple discussing both long-familiar and novel topics might be one helpful direction. Such a study would allow for the separation of age effects and topic familiarity effects, if not age and duration of marriage. In fact, as those are the relevant mechanisms we propose, such a design could be quite effective.

The sample included only relatively young-old participants, and it re-

mains unclear whether results can be further generalized to older pairs. We also, unfortunately, had no young couples as a comparison group. Other work does suggest more similarities between younger and middle-aged couples than between middle-aged and older couples, at least in terms of the functions of conflict conversations (Zietlow & Sillars, 1988). Finally, although we have focused primarily on conflict interactions, listening during supportive interactions may also be important to relationship satisfaction and longevity, at least in young couples (Krasnoperova & Schraedley, 1998).

In sum, middle-aged and elderly couples show substantial similarity in the frequency with which they display emotional facial expressions as listeners. The picture is different when one looks at generic signals. There, happy elderly couples are less likely than happy middle-aged couples to display such signals. For older happy couples, this has no apparent cost for marital satisfaction. While marital researchers are correct that in many marriages, listening behavior of all types plays a key role in maintaining satisfaction in the face of conflict, psycholinguistic perspectives offer a complementary set of considerations for those exploring the development of communication patterns over time. In some cases, less can be just as much. Recently, researchers are beginning to extend developmental theories developed for exploring individual ontogeny to relational and collective contexts (Baltes & Carstensen, in press). Such extensions aim to understand how people develop in conjunction with close others like spouses and long-time friends. Viewed in such a context, findings that highlight the importance of relationship age are one step towards collective approaches to development.

Note

1. Using either spouse's scores separately does result in changes in classification for between 8 (for wives' satisfaction ratings) and 16 (using husband's satisfaction) of the 79 couples. The results for all analyses are similarly patterned when using the wife's Locke-Wallace ratings. Using husband's ratings results in one change, specifically, that the age × satisfaction interaction reported below emerges primarily for husband's listening behavior (Age × Satisfaction × Spouse $F (1,75) = 4.2, p < .05$).

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