

# Talking the Talk: Collaborative Remembering and Self-Perceived Expertise

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Discourse and self-perceptions are likely to be related in bidirectional ways. That is, people's self-perceptions are likely to shape their discourse behavior, but their (and their partners') discourse behavior in turn will shape their subsequent self-perceptions. To provide empirical evidence for this proposal, we conducted a study in which pairs of friends ( $n = 21$  pairs) encountered a computer game. One friend played the game while the other observed; subsequently, both were asked to jointly tell a third party about their experience with the game. The resulting conversations were coded for narrative and other contributions, and discourse elements were examined in relation to pre- and postparticipation perceptions of expertise at the game. Players produced more narrative contributions than observers but only when observers had low self-perceived expertise prior to the game. Observers' narrative contributions were linked to changes in the players' self-perceptions of game expertise from prior to postconversation. These findings show that self-perceptions of expertise both shape, and are shaped by, discourse behavior.

The notion that selves are constructed in discourse is not especially new (Davies & Harre, 1990; Harré, 1983; Harrienger, 1998; Van Langenhove & Harré, 1993), but this idea is often pursued in ways that do not connect to the mainstream psychological literature on the self, whether social psychological or developmental (Thorne, in press). We aim to link these two areas by positing that conversing about experiences is a process by which people and their audiences jointly construct beliefs and perceptions about the self (McLean, Pasupathi, & Pals, XXXX; Pasupathi, 2001). In this article, we present a small-scale study that examines how discourse is influ-

enced by the relative expertise of those involved and how such discourse in turn serves as a vehicle for influencing later self-perceptions.

We first review work addressing discourse, focusing on collaborative remembering. We then consider the social construction of the self from a social cognitive standpoint (Swann, 2000) and propose an approach to empirically explore how discourse about memory constructs self-perceptions in adults. We outline a set of hypotheses about how self-perceived expertise both influences, and is influenced by, collaborative remembering in conversation and report on a study that tests these hypotheses.

## COLLABORATIVE REMEMBERING AS THE SOCIAL CONSTRUCTION OF THE SELF

Collaborative remembering is important for the development of personality and self from childhood through the end of life (Fivush, 1998; McLean & Thorne, 2004; McLean et al., XXXX; Pasupathi, 2001; Pasupathi, Lucas, & Coombs, 2002; Reese & Fivush, 1993; Thorne, 2000; Wang, 2004). First, both listeners and collaborators make important contributions to collaborative remembering (Bavelas, Coates, & Johnson, 2000; Clark, 1996; Krauss & Chiu, 1998). Second, selves shape stories and stories shape selves. People's beliefs about themselves influence both what, and how, they remember in social contexts (McAdams, Diamond, de St. Aubin, & Mansfield, 1997; McAdams, Hoffman, Mansfield, & Day, 1996; McLean et al., XXXX; McLean & Thorne, 2004), and the process of recalling events in conversations can, in turn, influence subsequent self-views (McGregor & Holmes, 1999; Pasupathi, in press; Pasupathi & Rich, 2005).

### Conversational Remembering Is Collaborative

Participants in a conversation contribute to remembering in both nonverbal and verbal ways (Bavelas et al., 2000), and pairs of individuals and larger groups such as families vary in the extent to which they engage in open and free-ranging remembering (Fivush, Bohanek, Robertson, & Duke, 2004; Sher-Censor & Oppenheim, 2004). Dyadic recall also varies in the extent to which it entails rapid turn-taking or serial monologues (Gould & Dixon, 1993). In fact, Gould and Dixon have shown that older married individuals are more likely to engage in serial monologues when asked to jointly remember a vacation for an experimenter. This may reflect differences in age and cognitive ability, under the assumption that rapidly shifting responsibility for storytelling is cognitively more taxing than serial monologues. It may also entail simply a more established pattern of joint recall, such that older couples are more aware of which portion of a story "belongs" to which partner.

The latter interpretation comes from dramatic role theories of collaborative memory process (Manier, Pinner, & Hirst, 1996). Specifically, dramatic role theory offers a tripartite division of contributions to joint recall (Manier et al., 1996), in which participants in a collaborative remembering occasion can offer different kinds of units. Depending on what types of contributions predominate in an individual's overall utterances, they can be said to have taken on the role embodied by those types of utterances.

According to Hirst and colleagues, the primary type of contribution to collaborative remembering is a *narrative unit*. These units contribute to furthering the story, providing details about what happened and what it meant. How people become the designated narrator for a particular memory is not well established. However, based on the brief review given earlier, one factor predicting who becomes narrator might be related to self-perceptions. One might expect that people contribute more to narrating a shared event when they took a more active role in the event itself (i.e., when they perceive the event as "theirs," or when they believe they have particularly relevant personal characteristics, such as expertise or interest).

Another major class of contributions is termed *mentor units*, which serve to help in searching memory. Such units include queries aimed at clarifying what happened, when, and who was involved, as well as reminders of forgotten details and other memory aids. These units correspond more tightly to notions of support. When the primary storyteller employs this type of utterance, other people perceive the account as more accurate (Norrick, 2003). Finally, *monitor units* serve to evaluate the correctness or accuracy of a contribution.

Hirst and colleagues noted that narrator contributions are influential in shaping the content of a joint recall. Presumably, increased narrator contributions allow an individual to more effectively influence all participants' subsequent memories, and perhaps their subsequent event-related judgments as well. For our purposes, we expected participants who contributed a greater share of narrative units to a collaborative memory to also exert more influence over their partner's subsequent self-beliefs.

### Selves Shape Stories and Stories Shape Selves

Remembering and self-perceptions, broadly defined as beliefs about and evaluations of one's own capabilities, predilections, and preferences, are clearly linked in bidirectional and reciprocal ways (Conway & Pleydell-Pearce, 2000; McAdams, 1996; McLean et al., XXXX; Pasupathi, 2001; Thorne, 2000). For example, both enduring and situation-specific motivations of the rememberer influence the content of memories elicited in laboratory settings (Bauer & McAdams, 2004; Dudukovic, Marsh, & Tversky, in press; McGregor & Holmes, 1999; Sanitioso, Kunda, & Fong, 1990; Tversky & Marsh, 2000; Woike, Gershkovich, Piorkowski, & Polo, 1999). The relation of self-conceptions to the content of remembering is

also evident for self-perceptions of the extent to which an event is “typical” for the self (Pasupathi & Rich, 2005).

The process of conversational remembering is not only influenced by self-conceptions, but it can also in turn influence self-conceptions. Somewhat indirect evidence for the effects of storytelling on self-conceptions stems from child developmental work. Mother–child communications and children’s narratives are both linked to attachment, with more securely attached pairs engaging in more open dialogues and producing more coherent narratives (Sher-Censor & Oppenheim, 2004). Open and free-ranging family remembering is associated with higher well-being on the part of children (Fivush et al., 2004). More direct evidence comes from our own prior work. Our findings suggest that a default approach in remembering personal experiences is to verify existing self-beliefs (Pasupathi & Rich, 2005). However, this verification can be disrupted when listeners are unresponsive or uncooperative, such that people’s preconversation self-beliefs change when they talk about an event to a distracted friend but not when they talk about an event to an attentive friend (Pasupathi & Rich, 2005). The idea of self-verification originates in social cognitive work on the development of self, to which we now turn.

### SELF-VERIFICATION AND REFLECTED APPRAISALS: SOCIAL COGNITIVE VIEWS OF SELF

People’s self-conceptions are clearly shaped by their social worlds (Gollwitzer & Wicklund, 1985; Hardin & Higgins, 1996; Higgins, 1996; Leary, Tambor, Terdal, & Downs, 1995). Early theorists such as Mead (1934) believed that people’s self-views were a reflection of the perceptions of others in their social worlds—that is, people’s appraisals of their own characteristics are reflected appraisals drawn from the views of parents, friends, and loved ones. Such reflected appraisals are communicated in social interactions, and in this way become available to the individual. More contemporary perspectives, such as sociometer theories of self-esteem (Leary et al., 1995), continue to emphasize the importance of others’ views in influencing people’s self-conceptions.

Self-verification theory holds that once people establish a sense of self, they act to maintain that set of beliefs (Swann, 2000). Through verifying beliefs about the self, people maintain a sense of the world as known, orderly, and predictable. One way to verify one’s beliefs is to associate with others who concur about one’s self-evaluations (McNulty & Swann, 1994; Swann, 1983; Swann, Bosson, & Pelham, 2002; Swann & Ely, 1984; Swann, Hixon, & De La Ronde, 1992). Such individuals not only help to reaffirm the individual’s self-perceptions but are also personally invested in those self-perceptions (De La Ronde & Swann, 1998). In other

words, often there is no contradiction between reflected appraisals and self-verification reflected appraisals.

Potential contradictions between reflected appraisals and the individual's self-views can arise in laboratory paradigms designed to create those circumstances or in the context of relationships with new people. Such contradictions allow explorations of the relative strength of self-verification and reflected appraisal processes (McNulty & Swann, 1994). For example, McNulty and Swann assessed roommates' views of themselves and one another at the beginning of the year and then again later in that year. They defined the impact of self-verification as the extent to which the roommates' ratings of individuals converged toward individuals' self-ratings across the year, or, in other words, the degree to which participants convinced their roommates to share their own prior self-perceptions. The impact of reflected appraisals was the extent to which the individuals' self-ratings were influenced by their roommates' initial views of them. Two studies revealed that both processes were evident. Thus, as McNulty and Swann titled their report, the self is "both architect and consequence of social reality."

In this study, we wished to examine how the discursive process of collaborative remembering would illuminate a specific way in which the self both constructs and is constructed by "social reality." We viewed Hirst and colleague's dramatic role approach as a potential way to capture how individuals contributed to remembering, one that would allow us to relate discourse behavior to preconversation self-views and to postconversation self-views. In addition, based on self-verification work, we wanted a method that would permit us to examine the delivery of reflected appraisals through narrative contributions.

## OVERVIEW OF THIS STUDY

We wanted to create a situation with several key characteristics. First, the self-perceptions at stake needed to be relatively homogeneous across all participants. Second, the experience about which participants would engage in conversation needed, likewise, to be relatively homogeneous. Because we had faced similar problems in previous work (Pasupathi & Rich, 2005), we chose to use a computer game, described in more detail later. The game permitted us to provide all participants with a similar experience and also permitted us to assess all participants' self-perceived skill at the game.

A third problem remained, however, and that was how to create a situation that (a) had only one target individual's self-perceptions as a focus but (b) permitted collaborative narration of the game in a sufficiently elaborated way without (c) conflating the possibility of interactions during the game providing an alternative mechanism for reflected appraisals and self-verification. Our prior work involved individuals experiencing the game and then speaking to a good friend who had not

seen the game or their friend's experience of it—but in that context, friends did not provide much in the way of narrative contributions. Our solution was to create a situation in which pairs of same-sex friends jointly experienced a computer game, though from somewhat different levels of involvement. Prior to experiencing the game, both participants reported on their self-perceptions of expertise related to this and similar games. Then, one participant, the player, played the game. The friend, the observer, observed. Following game play, both parties rated the player's expertise at the game, providing us with the perception the player might attempt to verify in the future and the reflected appraisal of the observing friend. The two were then asked to jointly tell a third person (a laboratory research assistant posing as a naïve third party) about the game, ostensibly for a study of how preplay exposure to others' experiences affected someone's game play. Telling a naïve third party elicited more thorough memories than a simple joint recall task. Following this three-party conversation, we reassessed players' self-perceptions of skill at the game and observers' views of the players' skill.

This procedure raises some additional issues. First, the perceptions of expertise were newly formed and hence potentially more malleable than the types of enduring self-perceptions that form the focus of prior work on self-verification. We return to this issue in the Discussion section. Second, the situation we created mixes the task of personal narration or storytelling about the game experienced by the two friends and the task of instruction giving—that is, telling the confederate how to play the game. In other words, how relevant are frameworks developed for personal narration to the situation in which our participants found themselves?

Although some (Bamberg, *in press*; Bruner, 1990; Labov & Waletzky, 1967) have suggested that narrative modes of thinking and talking are distinctive and that personal storytelling is narrative whereas instruction giving might be characterized as paradigmatic in Bruner's terms, others (Gerrig, 1994) have suggested that most discourse settings typically viewed as narrative mix the two—providing conceptual frameworks as well as goal-action sequences. Instruction-giving discourse is studied in varied ways. In terms of referential communication, more expert participants engage in more efficient referential communication (Isaacs & Clark, 1987). In tutoring, which corresponds more to the kind of instruction giving demanded by our context, more expert tutors have a greater focus on content rather than motivation (Cromley & Azevedo, 2005). Finally, in work on participatory structures in the classroom, which examines who has the right and responsibility for talking during instructional units, knowledge is clearly linked to the privilege of speaking (see, e.g., Cornelius & Herrenkohl, 2004). These findings suggest that expertise is associated with more content focus and more "right" to talk—in our case, with the contributing of a larger proportion of narrative units during the conversations.

This review, combined with our particular design, supported making the following hypotheses:

1. Players would contribute, on average, more narrative units than observers, based on their higher level of participation-based “expertise.”
2. Players and observers’ narrative contributions would also vary as a function of their preexperiment self-perceptions of expertise at such games, with more expert individuals making more narrative contributions to the joint recall.
3. Observers would exert greater influence on player’s postconversation self-perceived skill if they contributed a greater proportion of narrative units. Greater proportions of narrative contributions from players would be associated with self-verification and a reduced impact of reflected appraisals.

## METHOD

### Participants

Participants were 21 pairs of same-sex friends (10 male pairs and 11 female pairs)<sup>1</sup> recruited from the introductory psychology course at the University of Utah. These pairs interacted with a third person, who was an opposite-sex confederate. Pairs had been friends an average of 5.9 years ( $SD = 5.6$  years, range = .5–21 years) and ranged in age from 18 to 54 ( $M = 20$ ,  $SD = 7.7$ ).<sup>2</sup> Participants were mostly European American (90.9%), as is typical of the University of Utah undergraduate population. Participants had virtually no prior experience with the specific game used in the study, but many participants had experience with similar games (e.g., SIM City). Participants were compensated with \$10 an hour or extra course credit in exchange for participation.

### Procedure

Following informed consent, pairs were assigned to either play the game (player) or watch their friend play the game (observer). Participants were told they were going to be taking part in two separate studies, in which the first experiment involved

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<sup>1</sup>As part of a senior honors thesis, participants were also randomly assigned to be given congruent or conflicting beliefs about the players’ skill prior to the conversation, but manipulation checks revealed that this manipulation did not work. Players in both conditions did not differ in their preconversation self-perceptions of skill or interest,  $t(21) < 1.5$ ,  $ps > .10$ . Observers in both conditions also did not differ in their perceptions of the player’s skill or interest prior to the conversation,  $t(21) < 1.5$ ,  $ps > .10$ . The level of agreement between players and observers about the players’ experience of the Sims game following the manipulation but prior to the conversation was also similar across these two conditions,  $t(19) < .5$ ,  $p > .7$ . Finally, all analyses reported in this article were repeated with condition as a covariate, and condition was never meaningfully related to, nor did it affect, any result reported in this article.

<sup>2</sup>Exclusion of the only pair of participants over the age of 21 did not change any of the reported results.

playing or watching their friend play a game and filling out some questionnaires and the second experiment involved the impact of hearing about a game on subsequent play. Participants were initially separated to complete background measures on their relationship to one another. Participants then were introduced to the Sims (Maxis, 2000) computer game. Sims is a game in which the task is to live out the virtual life of a person. It requires players to make sure their virtual person, or Sim, is well fed, sleeps enough, and even uses the bathroom. The experimenter gave participants a brief overview of how to play, then asked the player to play the game and the observer to observe the game play. The game was set on medium-high speed, so that in practice the game was quite difficult and most participants played very badly. Participants were asked not to talk with one another during the game. The game play period lasted 15 min. Following game play, player and observer were separated again and asked to complete questionnaires on their perceptions of the player's skill and interest in the game.

The second portion of the experiment followed. Participants were instructed as follows:

This next study is interested in how being told about the game from people with different skill levels and experience can impact a person's later performance. We will ask the two of you to talk to a participant about your experiences with the game today. After you both talk to him/her, we are going to have him/her play the game. Your priority is to be as accurate as possible in telling them about your experience and skill in playing the game. And when you are done with the conversation it would be great if you didn't mention anything about the reasons for the study so it won't affect the outcome.

Player and observer were then seated in a videotaping room together with an experimental confederate and were videotaped as they told the confederate about the game. To ensure that the player and observer did address skill level, the confederate asked the player if he or she thought the game was hard, after which the observer was asked "was he/she (player) good?" and the player was asked "were you good?" This series of questions was modified if participants had talked about their ability or performance without prompting and was included to ensure that conversations touched on the issue of skills, as pilot testing indicated that participants did not always talk about skill. Aside from these questions, the confederate limited his or her responses to noncontent-laden prompts for more information. Participants were instructed to indicate when they felt they had completed the conversation by waving their hands. After the videotaped conversation, participants were separated and given the same questionnaires concerning their skill and interest for the game. Participants were then fully debriefed and compensated for their time.

## Measures

*Observer and player preparticipation expertise in Sims-type games.* We assessed participants' prior knowledge of and interest in Sims-type computer games with three self-reported items on a 6-point Likert-type scale measuring skill from 1 (*amateur*) to 6 (*expert*), frequency of play from 1 (*never*) to 6 (*every day*), and interest from 1 (*nonexistent*) to 6 (*couldn't get higher*). Participants were also asked to assess their friend's prior knowledge on the same items. Internal consistencies were high (observer self  $\alpha = .92$ , observer rating player  $\alpha = .94$ , player rating self  $\alpha = .90$ , player rating observer  $\alpha = .87$ ), and participants' self-ratings were positively correlated with their ratings by one another (player self-rating with observer rating of player,  $r = .66$ ,  $p < .01$ ; observer self-rating with player's rating of observer,  $r = .54$ ,  $p < .01$ ). The aggregate indicators of observer's self-perceived expertise and player's self-perceived expertise served as predictors for examining how self-perceptions of expertise influenced contributions to the joint recollection of the game experience.

*Pre- and postconversation perceptions of player skill for the Sims computer game.* We measured both observers' and players' perceptions of the player's skill at the Sims computer game twice: following playing of the game and again following the conversation. The measure involved three questions about skill (e.g., "How talented do you think you/your friend are/is at Sims?"). Responses were given on a 6-point scale, with 1 being the lowest skill or interest and 6 being the highest. These measures were internally consistent (players preconversation self-perceived skill,  $\alpha = .86$ ; players postconversation self-perceived skill,  $\alpha = .94$ ; observer's perception of player skill preconversation  $\alpha = .96$ ; observers' postconversation perception of player skill  $\alpha = .98$ ).

*Coding of narrative behavior along dramatic role lines.* Based on Manier and Hirst's (1996) original work, we first parsed the transcribed conversations into utterances. For the initial parsing, coders agreed 93% of the time. Differences were resolved via discussion prior to content coding. We then classified each utterance as either narrator, mentor, or monitor in content. Narrative utterances assume the function of telling the story. Examples included statements describing the game, for example, "It's like about you have a person and they (there is like different activities) like bathing, cleaning, watching TV, going to sleep, like that kind of thing." Importantly, as these examples indicate, narrative utterances in this specific context also include instructional content. Mentor comments assume the function of prompting narrators to further their narratives and provide more details. They can include providing criticisms, directions, helpful remarks, substantial queries, and memory probes, for example, "Is there anything else you need to know?" Finally, monitor utterances explicit agreed or disagreed with other's statements,

essentially evaluating the correctness of the narrative. For example, following the narrative utterances “Like when you have him take a bath. It shows him like get undressed and then there is like [inaudible] like you know like the fuzzies sensors on his little body. (Laughing),” came a monitor utterance that confirmed the validity of these statements, “Yeah.” Finally, a “noncodeable” category included inaudible statements and other content that did not fit these three categories clearly.

To establish reliability, two coders independently coded 6 transcripts and 441 units. Agreement at the unit level was adequate, 77%,  $\kappa = .59$ ,  $p < .001$ . We computed the percentage of total units that were player-contributed narrative units, mentor units, and monitor units and observer-contributed narrative units, mentor units, and monitor units.

## RESULTS

Table 1 shows means and standard deviations for all the variables employed in analyses. Table 2 shows correlations between the number of different types of units across player and observer. As Table 2 shows, in general, more of one unit was associated with more of another; this was especially true for one person’s narrative units and the others’ mentor units. Table 3 shows correlations between narrative units and preparticipation self-perceptions of expertise.

TABLE 1  
Descriptive Statistics on Study Variables

<i>Specific Variables</i>	<i>M</i>	<i>SD</i>
Narrative measures		
Player narrative percentage	0.37	0.10
Player mentor percentage	0.08	0.04
Observer narrator percentage	0.23	0.12
Observer mentor percentage	0.10	0.06
Prestudy simulation game expertise		
Observer self rating	2.20	1.31
Player rates observer	2.39	1.37
Player self rating	2.35	1.25
Observer rates player	2.24	1.38
Preconversation skill ratings		
Player self-rating	3.40	1.17
Observer rating player	3.31	1.42
Postconversation skill ratings		
Post player self-rating	3.60	1.22
Post observer rating player	3.40	1.53

TABLE 2  
Correlations Between Raw Numbers of Narrative, Mentor,  
and Monitor Units Across Players and Observers

<i>Player</i>	<i>Observer</i>		
	<i>Narrative</i>	<i>Mentor</i>	<i>Monitor</i>
Narrative	.39†	.82**	.55**
Mentor	.60**	.43*	.28
Monitor	-.16	.13	.18

† $p < .10$ . \* $p < .05$ . \*\* $p < .01$ .

TABLE 3  
Correlations Between Conversational Contributions and Preparticipation  
Self Perceptions of Expertise at Simulation-Type Games

	<i>Observer Narration</i>	<i>Player Narration</i>
Observer self-rated expertise	.63**	-.31
Observers expertise rated by player	.36	-.02
Player's self-rated expertise	.31	.12
Player's expertise rated by observer	.26	-.02

### Hypotheses 1 and 2: Role in the Game and Preparticipation Expertise Influence the Extent of Narrator Contributions

Our first analysis involved confirming that variations in narrator and mentor contributions from the pairs were systematically related to their role (player vs. observer) and to their preparticipation expertise in Sims-type games. We initially examined whether gender exerted main effects or interacted with role or expertise, and it did not. Gender is therefore not discussed further.

A general linear model was employed predicting the percentage of units that were narrator and mentor as a function of role (player vs. observer—a within-subjects factor), type of contribution (narrative vs. mentor), and preparticipation expertise (both observer and player, modeled as continuous variables). Monitor and uncodeable units were excluded to avoid issues of collinearity. The results of this analysis yielded significant main effects of type,  $F(1, 16) = 10.5$ ,  $p < .01$ ,  $\eta^2 = .40$ , and role,  $F(1, 16) = 5.7$ ,  $p < .03$ ,  $\eta^2 = .26$ . In addition, there were interactions involving type and role,  $F(1, 16) = 9.2$ ,  $p < .01$ ,  $\eta^2 = .37$ , role and observer's preparticipation expertise,  $F(1, 16) = 7.0$ ,  $p < .02$ ,  $\eta^2 = .30$ , and role, type, and observer preparticipation expertise,  $F(1, 16) = 6.7$ ,  $p < .03$ ,  $\eta^2 = .30$ .

The main effect of type of contribution was due to the fact that narrative units constituted a higher percentage of the accounts ( $M = .60$ ,  $SD = .11$ ) than mentor units ( $M = .18$ ,  $SD = .06$ ), consistent with the nature of this task. The main effect of

source was due to the fact that, overall, players contributed a higher percentage of units ( $M = .44$ ,  $SD = .09$ ) than did observers ( $M = .33$ ,  $SD = .10$ ). Simple-effects comparisons suggested that narrative contributions contributed more to differences in player and observer contributions,  $F(1, 16) = 11.0$ ,  $p < .01$ ,  $\eta^2 = .41$ , than did mentor contributions,  $F(1, 16) < 1.2$ ,  $p > .15$ . Because observer preparticipation expertise was a continuous variable, we followed up interactions involving this variable by computing partial correlations, controlling for other variables in the model. For the Role  $\times$  Observer Preparticipation Expertise interaction, correlational analyses showed that observer preparticipation expertise was significantly and positively related to the overall percentage of contributions by observers,  $r = .54$ ,  $p < .02$ . For the Type of Contribution  $\times$  Role  $\times$  Observer Preparticipation Expertise interaction, we recomputed correlations separately for narrative and mentor contributions. Observer preparticipation expertise was strongly and positively correlated,  $r = .63$ ,  $p < .01$ , with observer narrative contributions and significantly and negatively correlated,  $r = -.47$ ,  $p < .05$ , with player narrative contributions. No other correlation with observer preparticipation expertise attained statistical significance.

To render the findings most clearly, and because correlational analyses were compromised by the small sample size in this study, we also did a median split on observer's preparticipation expertise and examined pairwise comparisons for observer versus player, narrative versus mentor units, and high versus low preparticipation expertise on the part of the observer. A median split was preferable to any other approach both for maintaining reasonable group sizes and because expertise itself was bimodally distributed, with roughly 50% of participants rating their expertise as extremely low (less than a 2 on a 6-point scale) and the remainder distributed around moderate levels of expertise. The results revealed only a single significant pairwise comparison. In pairs in which the observer's preparticipation expertise was low, players contributed more than twice the percentage of narrative units ( $M = .39$ ,  $SEM = .03$ ), compared to observers ( $M = .16$ ,  $SEM = .03$ ). When the observers' preparticipation expertise was in the upper 50th percentile, both player and observer contributed equal percentages of narrative units (player  $M = .33$ ,  $SEM = .03$ ; observer  $M = .30$ ,  $SEM = .03$ ). Both members of the pair contributed equal percentages of mentor units regardless of preparticipation expertise. Thus, differences in contributions to the joint narrative based on role in the event were moderated by the preparticipation expertise of the partner in the less central role.

### Hypothesis 3: The More Narrating the Observer Does, the Greater the Influence of His or Her Reflected Appraisals on Players' Postconversation Self-Views

If observers narrate more, do they experience greater success at influencing player's self-perceptions following the conversation? Alternatively, when observ-

ers narrate less, are their postconversation views of the player more affected by the player's own perceptions, as in self-verification processes? In what follows, we followed recommendations by Baron and Kenny (1986) for mediational analyses, centering all variables before running the analyses. As a first step on all analyses, we controlled for the relevant preconversation perception of player skill.

*Reflected appraisals.* A regression predicting player's postconversation self-perceived skill from the observer's preconversation rating of player's skill suggested that observer's preconversation views significantly predicted player's postconversation views, even after controlling for player's preconversation views,  $\Delta F(1, 18) = 5.2, p < .04, \Delta\chi^2 = .04, \beta = .21$ . Thus, not surprisingly, observers do influence player's views to some degree.

A second regression analysis revealed that player's postconversation self-rated skill was significantly predicted by the observer's narrative contributions, even after controlling for player's preconversation views,  $\Delta F(1, 18) = 8.6, p < .01, \Delta\chi^2 = .06, \beta = .24$ . More narrative contributions by observers were associated positively with player's postconversation skill self-perceptions. This raised the question of whether observer narration, in particular, mediated the relation between observers' preconversation views and player's postconversation views.

A third analysis showed that observer narrative contributions tended to predict player's postconversation self-rated skill even after controlling for player's preconversation skill ratings and observer's preconversation skill ratings,  $\Delta F(1, 17) = 3.9, p < .07, \Delta\chi^2 = .02, \beta = .19$ . In contrast, observer preconversation perceptions did not continue to significantly predict player postconversation self-ratings after controlling for observer narrative contributions during the conversation,  $\Delta F(1, 17) = 1.2, p = .30, \Delta\chi^2 = .01, \beta = .11$ . These findings meet the criteria for a mediational relation and suggest that the impact of observers' preconversation beliefs on players' postconversation beliefs is mediated by the extent to which observers engage in narrative contributions. Figure 1 depicts the mediational model. We also computed a Sobel test to evaluate whether the indirect influence of observer preconversation perceptions on player postconversation self-perceptions via observer narrative contributions was significantly different from zero (Preacher & Leonardelli, 2001). This test yielded a test statistic of 1.9,  $p < .07$ ; given the small sample size, the result is supportive of the idea that the indirect, or mediated, effect is meaningful. Notably, given the small sample sizes, it would be premature to conclude that observers' narrative contributions fully mediate the impact of their preconversation views on players' postconversation self-perceptions.

*Self-verification.* A parallel set of analyses allowed us to examine whether self-verification processes were evident in our data. In these analyses, we first examined whether observer's postconversation ratings of player's expertise were influenced by player's preconversation self-views, after controlling for observer's

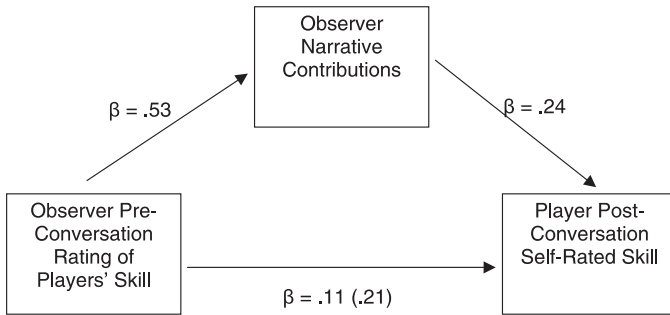


FIGURE 1 Effects of observers' views of the player on players' postconversation self-perceptions are mediated by observers' narrative contributions.

preconversation views. This was not the case, and, consequently, the data did not support continuing to examine a mediational model. However, because of substantial evidence for self-verification in other work, including our own past work using similar paradigms (e.g., Pasupathi & Rich, 2005; Swann, 2000), we pursued several internal analyses to further examine this nonresult.<sup>3</sup> Next, we describe these analyses, but they must be taken with extreme caution, both because they are post hoc in nature and because they involve extremely small sample sizes vulnerable to distributional problems.

We reasoned that one possibility is that only players who initially view themselves as highly skilled will engage in self-verification attempts during the conversation. We examined partial correlations between players preconversation self-ratings and observers' postconversation ratings, controlling for observers preconversation views, separately for low versus high skill players (based on preparticipation expertise). Contrary to predictions, low skill players had greater influence on observers' postconversation perceptions,  $r(8) = .52, p < .13$ , than did high skill (self-perceived) players,  $r(11) = -.10, p > .50$ . Another possibility is that players' preconversation perceptions were highly unstable and not influential but that their narrative contributions were influential on observers' postconversation views—that is, that the perceptions they were actively constructing in conversation did matter. However, after controlling for observers' preconversation skill ratings, player narrative contributions were uncorrelated,  $r(18) = .07$  with observers' postconversation views.

As one last way to look at the data, we combined the previously described approaches, looking at narrative contributions as the predictor of observer postconversation views but doing so separately by players' prior expertise. Here,

<sup>3</sup>We want to credit one of our anonymous reviewers with providing us with the impetus for these analyses.

we did find a pattern of relations that made sense. Specifically, for players perceiving themselves as highly skilled, narrative contributions did relate strongly and positively,  $r(8) = .77, p < .01$ , to observers' postconversation views for high-expertise players. For low-expertise players, this relation was weaker but was also negative,  $r(6) = -.30, p = ns$ . This makes sense and provides some data consistent with self-verification processes in the following way. Self-perceived experts who produce more narrative units are perceived as more expert by their friend following the conversation. In contrast, self-perceived novices who talk more for a novice evoke lower subsequent impressions of expertise on the part of their friends. Again, these results are best viewed as provocations for future research and should not be taken as reliable results.

## DISCUSSION

This exploratory study linking collaborative remembering process to self-perception had two goals. First, we wanted to explore whether differences in the self-perceptions that people bring to collaborative remembering were associated with differences in the process by which that remembering unfolded. Second, we wanted to examine whether narrative contributions to a collaborative memory served as a way for participants to influence one another's subsequent self-views. In other words, the procedure we developed permitted us to examine how selves may shape storytelling and, in turn, how storytelling might shape the self, as implied by our own theoretical frameworks (McLean et al., XXXX; Pasupathi, 2001). The findings were supportive of these claims.

First, we found that self-perceived expertise in the activity was linked to variability in narrative contributions to a joint recall of that activity. The person whose role permitted the most direct involvement in the game (i.e., the player) clearly took on the primary narrator role in most pairs. However, variability in the narrative contributions of the observers, who did not play the game directly, was attributable to their view of their own expertise in similar games. As we expected, people contributed more to narrating a shared event when they took a more active role in the event itself and when they perceived themselves as having expertise relevant to the event. The fact that role mattered a great deal for narrative contributions is not surprising—our manipulation of role was quite strong. That is, players were highly involved, and observers were relegated to a largely background involvement with little capacity to influence events. In this light, however, it is especially surprising that self-perception moderated the influence of role in this particular case, such that role did not matter when the observers' self-perceived expertise was high.

One interpretive issue here is that the important factor may not be observers' self-perceptions alone but rather the discrepancy between observers' self-views

and players' self-views. Our original approach is predicated on the view that self-perceptions (in this case of expertise) shape discourse behavior, but, in fact, discourse behavior will probably result from a negotiation of the self-perceptions of all participants. In the case of these findings, substituting a discrepancy score between players' and observers' preparticipation game expertise results in similar findings across the board; that is, the self-perception of observers and the discrepancy between players and observers have similar correlates in this case. However, this may not always be the case, and future work in the area will need to take this issue up in more direct ways.

Taking on a narrative role is important, because in taking charge of contributions to discourse, that discourse becomes a vehicle for transmitting one's own perceptions and thereby influencing the views of others. In our specific study, observers' preconversation beliefs about the players' skill were associated with player's postconversation self-perceptions, suggesting that the conversation was a vehicle for communicating reflected appraisals. But this association was mediated by the extent to which observers contributed narrative units. Thus, consistent with Hirst, Manier, and colleagues' ideas, contributing more narrative units is a way to exert greater influence over collaborator's self-perceptions. In the terms of Swann's work, storytelling in this case allowed for reflected appraisals to do their "work."

But what, exactly, is happening in those narrative units? Narrative units as assessed in our study were a broad and variable class of contributions to discourse. One possibility is that only some of the narrative units were relevant for communicating reflected appraisals, a possibility that would require more specific parsing of the "narrative" category. For example, perhaps only utterances directly related to assessing the players' skill were responsible for our observed effects. However, when we look at qualitative examples of the conversations, another possibility arises having to do with the overarching nature of the discursive process. Consider, first, an excerpt of a conversation involving a low-expertise observer (P = player, O = observer, C = confederate; narrative utterances are bold):

- P:** So you've never played Sims before?  
**C:** No, I don't even know what it is.  
**P:** It's this game like, is it virtual reality?  
**O:** I think so, (yeah).  
**P:** (Something), it's like you get a person, (mine is jane), jane um, anyway and you have to make her, you have to go through her everyday activities and kinda of I see it is as kind of keeping her alive  
**C:** (Uh-huh) okay.  
**O:** Yeah  
**P:** right? like there are these bars at the bottom that say energy, sleep, hunger, (social), fun, whatever, and if you—  
**C:** (Uh-huh) what do the bars do?  
**P:** Well, they get— the bigger the red is, (like) she's deprived  
**C:** (Uh-huh)

- O: Yeah  
 P: If it's all green, she's totally satisfied.  
 C: (Oh okay) un hun  
 P: My girl, all red with the fun  
 O: (laugh)  
 P: She was having no fun, what (so ever)  
 O: (And we)She couldn't figure out how to like make her have fun  
 C: un hun  
 P: (Yeah)  
 O: (like) we she didn't know what to do, and I couldn't, I didn't really say anything I just watched her and was (like hummmmm) (laugh)  
 C: (oh okay)  
 P: You can't, it says read a book or something, but I wanted her to have fun, like (whatever you know)—

In this pair, the observer does not provide a great deal of narrative content, and when she does, that narrative content emphasizes the inability of the player to address her characters' needs. Moreover, the observers' description of her own involvement suggests that the game is not worth time or effort. The player in this pair reported a .25 drop in her perception of skill from pre- to postconversation. Contrast that example with a pair in which the observer had high preparticipation expertise:

- O: Yeah.  
 P: Uh, I guess you're, uh, you're talking.  
 O: Okay, uh, you're just uh, it's called Sims, and you just basically run this dude's life.  
 C: It's a video, video game?  
 P: Yeah, it shows like his house and his yard, and that's all you ever get to see, like if he goes to work, you don't see him go to work, you see him get in the carpool and go.  
 C: Okay.  
 O: While we were playing it, he was a pilot. I don't know if you're gonna have the same dude. But, you get different levels in his life that you need to regulate, like the bladder, and you make sure he goes to the bathroom regularly, make sure that he's eating, there's a social level, there's a fun level, you can watch TV  
 P: Energy.  
 O: Yeah, you can work out, uh, sleep. You gotta make sure he sleeps. Take showers ....  
 P: Uh, basically, it's like um, you want to make sure all of his needs are met so he's happy, so he doesn't like yell at you through the game.  
 O: Unless you want him ...  
 P: Like, have trouble at work, I would say, like um, when we were playing, we were working on like, attri-, part of your career, as you go, you, you gain pieces like, uh, you study mechanical, and you, the you build up your mechanical knowledge.  
 C: Oh.  
 P: So you get promotions, and we were working on that, so he can get a promotion. You also have to build friendships in order to do that, which means you have to

use the phone, and call up a friend, and then they come over to your house, and you talk, and you get, you build friendships. All right, you probably won't have enough to do that, but (basically just keep him alive)

In this conversation, the observer provides commentary that is equivalent to that of the player. Both participants use “we” language in describing their actions—the activity they are describing is clearly shared and mutually valued, and the player in this instant increased his self-perceptions of expertise by about .25 points. Note that at no point did either participant explicitly make skill commentary in this conversation.

So when our participants made narrative contributions, they typically did so in ways that built on the partners' prior statements. In other words, they engaged in cooperative discourse that treated the partners' statements about the game as factual and foundational. They also behaved as though the game was important and worth attention. We believe it is these features of observer narration that account for why observers were able to transmit their positive views of players' skill when they contributed more narrative units. In other words, the treatment of players' contributions as knowledgeable and factual was what created the shared perception of players as experts. This view suggests that, in future work, rather than parse narrative contributions further, a more fruitful direction might be finding a way of coding narrative contributions as cooperative or uncooperative/undermining. Of course, in our data, the latter type of contribution was rare, and it will take additional thought to develop a situation for the laboratory that might induce uncooperative contributions.

Perhaps puzzlingly, we did not find clear evidence for self-verification processes—that is, players' self-perceptions did not influence observers' postconversation views of players. First and foremost, the specific self-perceptions we examined were relatively novel views about skill at a computer game. This allowed us to examine self-perceptions that were clearly related to a narrateable event and that could show malleability over a short time period. However, such self-perceptions may be less comparable to the broader and more stable self-views at stake in much work on self-verification (Swann, 1996). Both the novelty and the narrowness of these views makes them vulnerable to change based on additional experience, including that of the conversation. For similar changes to occur in more broad and established self-views, we would expect that the aggregation of multiple tellings would be required, at a minimum.

Second, an asymmetry in the player and observers' experiences may have rendered our paradigm a better vehicle for examining reflected appraisals than self-verification process. A one-time experience with a novel game may not have been sufficient for players to hold strong, established views about their own skill. In contrast, because observers often attribute behaviors to disposition even on initial observation (Ross & Nisbett, 1991), observers' views of players' skill may

have been relatively confidently held and therefore more likely to be coherently transmitted in discourse.

Finally, our internal analyses suggested that there was some self-verification at work but that the direction of self-verification, not surprisingly, varied depending on players' initial views of themselves. These analyses suggest that self-verification processes are likely to be evident in additional research using paradigms that allow for self-perceptions of varying "strengths" and directions to be assessed and providing for larger sample sizes with greater statistical power.

Among the obvious limitations of our study is the small sample size, which clearly limited our ability to test more complex models and rendered our power to detect correlational associations somewhat limited. Again, for this reason alone, our findings do not provide a good test of self-verification per se. Second, our use of a very specific and somewhat unusual context involving the first experience at playing a computer game, and two friends talking to a stranger about that experience, may not generalize to the kinds of shared experiences that have been the focus of previous studies of collaborative remembering process, which have focused on family members and a wider array of events (Fivush et al., 2004; Manier & Hirst, 1996; Norrick, 1997). However, heterogeneous and nonnovel events make it quite difficult, methodologically, to examine self-perceptions—as different events may be linked to very distinct self-views and in a wide variety of ways (Pasupathi, Mansour, & Brubaker, XXXX). In this sense, although our methodological choices limited the generalizability of the findings, they also provided a demonstration of one approach to exploring process-self relations. Moreover, self-perceptions of skill do have importance in a developmental sense: They are associated with continued investment in an activity.

### Implications for Issues of Remembering and Self

Among the most important implications of these data are the bidirectional relations between self-perceptions and the nature of individual's contributions to discursive remembering. Links between remembering and self are not new and have been broadly explored in recent work (Conway & Pleydell-Pearce, 2000; McAdams, 1996; McLean et al., XXXX; Pasupathi, 2001; Thorne, 2000). However, previous work has underemphasized the way that remembering can exert prospective influences on self, as well as the collaborative and often discourse-based nature of remembering. In fact, such work has often concentrated on major life events or self-defining memories, in contrast to the types of everyday "small" stories on which our data were based (e.g., Bamberg, in press). Our data suggest that the collaborative processes by which remembering unfolds in discourse about everyday experiences are an important key to the way that self-perceptions become open to social construction. In this sense, our findings provide an affirmation in young adulthood of earlier work in the child developmental literature on the emer-

gence of autobiographical memory (Fivush, 1998; Fivush & Haden, 1997; Haden, Haine, & Fivush, 1997; Reese & Brown, 2000). That work has shown that collaborative process is integral to children's development of autobiographical memory capacities. More recent work in this arena shows links between the process of joint recall in family-dinner settings and individual outcomes for children, such as self-esteem (Fivush et al., 2004). Children whose families engage in open, elaborative remembering around the dinner table report higher self-esteem in traditional questionnaire assessments.

Past work suggesting how the self shapes remembering has emphasized how traits and goals of the individual are reflected in the content of individual remembering, as befits the roots of this area in personality and social psychology. In contrast, these findings suggest the importance of self-perceived expertise as a factor shaping autobiographical remembering in conversations, in part through its influence on whose voices are represented in collaborative remembering. Expertise links more directly to traditions within cognitive and lifespan developmental psychology as well as to discourse work on instructional settings. Those who feel themselves to be expert in either the event itself (players) or on related matters (observers with high self-reported game expertise) are more likely to take an active role in telling a jointly shared story, or are more likely to be seen to have the right to speak in a group learning exercise. Of course, we explored a situation in which expertise was fairly narrowly and conventionally defined—as being good at, experienced with, and interested in a particular activity. In everyday family recounting, this negotiation may be more complex to explore, as the idea of who is an “expert” may be more open to contest.

Our results do lend support to the endeavor of linking remembering in discourse to self-perceptions. They provide an initial paradigm for exploring those relations in a laboratory context that may afford more control, consistent with some of the laboratory traditions of exploring both collaborative remembering (e.g., Weldon et al., 1997) and self-perceptions (Rhodewalt, 1998). McLean et al. (XXXX) broadly suggested that selves shape stories, but stories also shape selves. It is probably not surprising to most readers that self-perceived experts are more likely to talk the talk. This study implies that talking the talk can create that sense of expertise.

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