Should We Create a Niche or Fall in Line? Identity Negotiation and Small Group Effectiveness

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A prospective study of 423 MBA students examined the interplay of identity negotiation and group functioning. The findings revealed that self-verification effects (through which group members brought others to see them as they saw themselves) heightened participants' feelings of connection to their groups (i.e., more identification and social integration and less emotional conflict) and improved group project grades on creative tasks (tasks that benefit from divergent perspectives). Appraisal effects (through which groups brought members to see themselves as the group saw them) facilitated group project grades on computational tasks (tasks that require deriving one correct answer). In addition, self-verification effects were more prevalent than appraisal effects. The authors discuss the implications of these findings for understanding the links among self-verification, self-categorization, and group outcomes.

The basis of man's life with man is twofold, and it is one—the wish of every man to be confirmed as what he is . . . and the innate capacity of man to confirm his fellowman in this way. (Buber, 1951, p. 102)

It is this cognitive redefinition of the self—from unique attributes and individual differences to shared social category memberships and associated stereotypes—that mediates group behavior. (Turner, 1984, p. 528)

Both Buber and Turner were intrigued with the interplay between the self and social reality, but the two had radically different understandings of the nature of this interplay. For Buber, individuals were in the business of bringing others to validate their established conceptions of themselves, thereby creating worlds that nurtured their enduring self-views. Turner turned this process on its head. He suggested that when people become members of groups, they surrender their idiosyncratic self-views in favor of views consistent with the groups' goals and purposes. Thus, whereas Buber championed the processes through which individ-

uals shape social reality, Turner emphasized the processes through which social reality shapes individuals.

Research and theorizing on the process of identity negotiation suggests that the conceptions of both Buber and Turner capture a basic truth. The identity negotiation framework (e.g., Goffman, 1959; Schlenker, 1984; Swann, 1987) begins with the assumption that when people enter social interaction, their first order of business is to devise an implicit agreement or "working consensus" regarding the identities that each person should assume. Once they reach such agreements, concerns about identity slip from center stage, and people shift their attention to the tasks that brought them together. Nevertheless, the fruits of the identity negotiation process (i.e., the implicit agreements regarding who is who) continue to define the relationship. Either party's failure to honor an identity that he or she has negotiated will disrupt social interaction and compel participants to negotiate a new working consensus.

Identity negotiation processes thus serve as the "thread" that holds the fabric of social interaction together. Although both parties obviously contribute to the outcome of these negotiations (e.g., Swann, 1987), researchers have identified two distinct forms of influence. In the tradition of Buber, self-verification theorists argue that one person (arbitrarily dubbed the "target") may behave in ways that bring the other (the "perceiver") to see the target in ways that are in line with the target's initial self-view (Swann, 1983). In contrast, proponents of self-categorization (e.g., Hogg, 1996; Tajfel, 1982; Turner, 1984) and appraisal effects (e.g., Shrauger & Schoeneman, 1979) have argued that being exposed to a group of perceivers causes targets to redefine themselves. Self-categorization theorists, for example, have suggested that being a member of a group will bring targets to exaggerate the importance of self-views that are valued by, and prototypic of, the group (for members of an athletic team, this might be sports ability) and diminish the importance of characteristics that are unimportant to

the group (for athletes, this might be artistic talent). In this instance, self-categorization processes work in concert with appraisal effects (e.g., Shrauger & Schoeneman, 1979) in which the perceivers form appraisals of targets, base behavior toward targets on these appraisals, and consequently elicit shifts in targets' self-views toward these appraisals.

In short, research on identity negotiation has concentrated on two distinct patterns of influence. One pattern, operating under the rubric of self-verification, has emphasized the influence of targets on perceivers. The other, operating under the rubric of self-categorization and appraisal processes, has emphasized the processes through which perceivers influence targets.

When Targets Create a Niche: Self-Verification Effects

Several theorists have suggested that people want others to confirm and thus stabilize their firmly held self-views (Lecky, 1945; Secord & Backman, 1965; Swann, 1983, 1990, 1999). There are at least two reasons why people might be so motivated. From an epistemic perspective, stable self-views act like the rudder of a ship, giving people a sense of continuity and coherence. With stable self-views in hand, people will feel confident that they can navigate the sometimes murky seas of everyday social life. From a pragmatic perspective, people sense that being understood eases social interaction and being misunderstood creates turbulence. For example, targets who are underestimated may find that perceivers patronize or slight them; targets who are overestimated may discover that perceivers place extravagant demands on them. In short, just as being perceived in a self-congruent manner may promote perceptions of coherence and calm the waters of social interaction, being perceived in an incongruent manner may trigger the psychological and interpersonal equivalent of a devastating tidal wave. For these and related reasons, people should be motivated to ensure that others see them as they see themselves—even if it means bringing others to recognize their flaws and limitations.

Although substantial evidence supports the contention that people want to maintain their self-views (for a review, see Swann & Pelham, in press), relatively few studies have directly tested the prediction that targets will actually bring perceivers' appraisals into harmony with their self-views. One exception is a study conducted by Swann and Read (1981). They showed that when targets' self-views were threatened by discrepant feedback, those who saw themselves as likable elicited exceptionally positive appraisals from their interaction partners and those who saw themselves as dislikable elicited exceptionally negative appraisals from their interaction partners. Similarly, Swann and Ely (1984) reported that when self-perceived introverted or extraverted targets interacted with perceivers whose expectations contradicted their self-views, targets generally succeeded in changing the perceivers' minds (but see Major, Cozzarelli, Testa, & McFarlin, 1988). Finally, McNulty and Swann (1994) found that the self-views of college roommates at the beginning of a semester predicted the appraisals that perceivers formed of them by the end of the semester. Moreover, these processes unfolded whether or not the self-views appeared to be objectively accurate. The research literature thus provides converging evidence that the self-views of targets influence the appraisals of perceivers.

When Targets Fall Into Line: Self-Categorization and Appraisal Effects

Self-categorization theorists (e.g., Hogg, 1996; Turner, 1985) assume that groups create cohesiveness by encouraging members to see themselves through the lenses of their membership in the group. So biased, group members base their liking for others on similarity to the prototype of the group rather than on qualities that they might otherwise deem important. One particularly robust finding is that people come to like and value in-group members to a greater extent than out-group members (e.g., Brewer, 1979; Hogg, Cooper-Shaw, & Holzworth, 1993; Hogg & Hardie, 1991, 1992).

For researchers interested in identity negotiation, the most striking characteristic of self-categorization theory is its suggestion that membership in groups causes people to modify their self-views. In this sense, it is a clear cousin to reflected appraisal theory (e.g., Stryker, 1987). The latter theory was developed by the early symbolic interactionists (e.g., Cooley, 1902; Mead, 1934) in their efforts to explain how people develop self-views. They suggested that people derive self-views by noting how significant others treat them and inferring that they must have deserved the treatment they received. For instance, if a woman is a member of a group that is important to her and she concludes that the other group members believe that she is a skilled statistician but uncreative, she may adjust her self-view accordingly. The theory explicitly asserted that targets' perceptions of how others view them (i.e., their "reflected appraisals") mediate the link between the appraisals of perceivers and self-views of targets (Kinch, 1963).

Numerous researchers have attempted to test predictions made by reflected appraisal theory (e.g., Kenny & DePaulo, 1993; Shrauger & Schoeneman, 1979). Some have presented cross-sectional research indicating that perceivers' appraisals, reflected appraisals, and self-concepts are related (e.g., Felson, 1980; Felson & Reed, 1986; Hoelter, 1984; Lundgren, Jergens, & Gibson, 1982; Schafer & Keith, 1985; for a review, see Shrauger & Schoeneman, 1979). Others have pointed to evidence that evaluations of performance or personality can alter the self-concepts of targets in laboratory settings (e.g., Jussim, Soffin, Brown, Ley, & Kohlhepp, 1992; Shrauger & Lund, 1975; Shrauger & Schoeneman, 1979; Snyder & Swann, 1978). Most persuasive, several researchers have conducted longitudinal field studies and found that the initial appraisals of perceivers shape the subsequent self-views of targets. Just as the appraisals of parents and teachers influence the self-views of children (Felson, 1989, and Cole, 1991, respectively), the appraisals of college roommates predict targets' subsequent self-concepts (McNulty & Swann, 1994; but see Manis, 1955).

Yet, critics of the reflected appraisal hypothesis have noted that no studies provide direct evidence that targets' reflected appraisals mediate the impact of appraisals on the self-views of targets (e.g., Felson, 1989). In fact, noting that targets' reflected appraisals are more closely related to targets' self-concepts than the actual appraisals of perceivers (Gecas, 1982; Shrauger & Schoeneman, 1979), some have suggested that reflected appraisals are merely a projection of targets' self-views rather than a mediator between perceivers' actual appraisals and the self-concepts of targets. Others have pointed out that the magnitudes of the effects in the field studies are small (cf. Madon, Jussim, & Eccles, 1997) and that these effects may in reality reflect a tendency for perceivers to

identify correctly what targets are actually like rather than a tendency for perceivers to shape the self-views of targets (Jussim, 1991; Kenny & DePaulo, 1993).

One goal of the research presented in this article was to address the foregoing concerns by studying identity negotiation processes in small groups. We were interested in the relation of the appraisals of group members (in their role as perceivers) to the self-views of other group members (in their role as targets). Specifically, we asked whether the self-views of targets influenced the appraisals of group members (*self-verification effects*), whether the appraisals of group members influenced the self-views of targets (*appraisal effects*), or whether some combination of the two outcomes occurred. Moreover, should appraisal effects emerge, we wondered whether they would be mediated by participants' reflected appraisals.

Consequences of Appraisal Effects Versus Self-Verification Effects

We were interested not only in the nature of identity negotiation processes in groups but also in the consequences of these processes. We addressed three possibilities.

Do Self-Verification Effects Foster Feelings of Connectedness?

When people learn that others see them congruently, they enjoy heightened feelings of coherence and predictability (e.g., Swann, 1983; Swann, Stein-Seroussi, & Giesler, 1992) and display more intimacy in marital relationships (e.g., De La Ronde & Swann, 1998; Swann, De La Ronde, & Hixon, 1994). Related to this, receiving self-verifying evaluations from others may cause group members to feel as if they have "personalized" the group by establishing a self-verifying niche. Members who feel understood may come to believe that it is safe to behave authentically, even if this entails behavior that does not fit perfectly with the group's priorities. For these and similar reasons, the tendency for group members to bring others to see them as they see themselves (self-verification effects) should make people feel more connected to their groups.

Do Self-Categorization–Appraisal Effects Foster Feelings of Connectedness?

Insofar as group membership brings members to see themselves .n terms of group-defining (prototypical) features, self-categorizaion theory suggests that people will feel more worthwhile and be ·ess uncertain (Hogg, 1996). These feelings should, in turn, foster ·eelings of in-group solidarity and similarity, group-mediated atraction, and group effectiveness (e.g., Hogg, Hardie, & Reynolds, ·995; LeVine & Campbell, 1972). As a result, people should feel nore identified with and integrated into the group, and they should ·xperience less conflict. In short, the tendency for self-views to .iove into accord with group members' appraisals (which should ·flect the valued identities of the group) should make members eel more connected to the group.[1]

Do Identity Negotiation Processes and Feelings of Connectedness Predict Actual Group Performance?

We suspected that self-verification processes and the feelings of ɔnnectedness that they should theoretically produce might con-

tribute to some types of group outcomes but not others. Here we relied on Hambrick, Davison, Snell, and Snow's (1998) distinction between tasks that can be approached in numerous ways and have no single "correct" answer (creative tasks) and tasks that involve assembling and analyzing fairly clear-cut information to derive a solution that has an objective criterion (computational tasks). We reasoned that because creative tasks, such as devising a plan for urban renewal, have no clearly defined criterion, it behooves groups to consider as many perspectives and alternatives as possible in reaching a mutually agreeable solution. Self-verification processes should improve performance on such tasks in two ways. First, having their unique attributes and perspectives validated should inspire group members to generate and express a wide array of potential solutions that will, in turn, maximize creative combinations of ideas and fresh insights. Self-verification processes may thus contribute directly to performance on creative tasks. Second, feeling known and understood by the group may make members feel more connected to the group and more motivated to engage in cooperative ventures. In this instance, feelings of connectedness may thus partially mediate the link between self-verification processes and group performance on creative tasks.

Appraisal effects might also bolster feelings of connectedness and thus contribute indirectly to performance on creative tasks. There was not, however, any theoretical reason to believe that appraisal effects would contribute directly to performance on creative tasks.

We expected that very different processes would predict performance on computational tasks (e.g., solving a math problem) because such tasks have a single, identifiable solution and are often best performed by individuals with relevant expertise working alone. Because such tasks do not require generating multiple solutions and cooperating with others, we saw no reason to expect that self-verification processes or feelings of connection to the group would improve performance on computational tasks. Nevertheless, appraisal effects might improve performance on computational tasks by facilitating the process of division of labor. That is, through appraisal effects, the group might see to it that computationally skilled persons take charge of the task and those who are less skilled defer to them.

Method

Participants

Four hundred twenty-three 1st-year MBA students at the University of Texas at Austin participated on a voluntary basis. Most participants were male (74%), Caucasian (67%), and U.S. citizens (82%). In addition, 17% were Hispanic, 5% were Black, and 11% were Asian. The mean age was 27 years.

Before the beginning of the semester, the administration of the Graduate School of Business randomly divided members of the incoming class into 83 study groups with 4 to 6 members per group. Once assigned, members of each group worked on all group projects within their academic

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[1] Note that, although the research featured in this article is relevant to self-categorization theory, it was not designed to test this theory. As a result, we did not include measures that directly examine some of the key aspects of the theory, such as the valued identities of the group members and the relation of these identities to their appraisals of one another.

program for the remainder of their first 4-month semester. Because these group projects accounted for a substantial portion of students' individual course grades, we were confident that participants would take seriously their involvement in the study groups. Occasionally, participants failed to complete a measure, which explains why the group sizes vary slightly across analyses.

Procedure

Theoretically, identity negotiation processes begin as soon as group members encounter one another. With this in mind, we conducted the first two (of four) data collection sessions during the orientation week for entering MBA students. Specifically, we measured self-views 1 or 2 days before the groups' initial meeting and appraisals immediately after the groups' initial meeting. We introduced the first session (T1a) by informing students that they would be participating in an investigation of the characteristics of effective study groups. In addition, we told students that their participation would involve completing a series of four questionnaires over the fall semester and that only members of the research team would see their responses. Participants then completed the initial measure of self-views as well as the background measures (e.g., previous experience in a work group and work preferences) described in the Control variables section.

Over the next 2 days, participants returned to complete the initial measures of appraisals (T1b). The experimenter began by informing participants of their group assignments and then having them interact with the other group members for 10 min. After this interaction, all participants recorded their appraisals of each of the other members of the group. In addition, participants indicated how similar they felt to other members of the group and how much they liked other members of the group. Because the T1a and T1b sessions took place within 2 or 3 days of one another, we henceforward refer to both as the "initial session."

We timed the next session (T2 or "later session") so that it occurred 9 weeks into the semester, presumably after students had had time to interact and sort out their mutual identities. Participants completed measures of their self-views, appraisals, and reflected appraisals during this session. At the end of the 15-week semester, participants once again completed measures of self-views as well as group functioning (T3 or "final session"). After the semester concluded, we asked all 15 course instructors to supply us with group project grades, and 10 instructors did so.

Measures

Means, standard deviations, and intercorrelations between all of the group-level measures are displayed in Table 1.

Self-Views, Appraisals, and Reflected Appraisals

Students rated both themselves and each of the other members of their study group on 11 dimensions. Four dimensions (intellectual–academic ability, competency or skill at sports, social skills–social competence, and creative or artistic ability) were derived from the Self-Attribute Questionnaire (Pelham & Swann, 1989). Six additional items were derived from a preliminary survey of 110 MBA students in which they indicated that the following six characteristics were particularly important to their self-definitions: trustworthy, leadership ability, cooperative, a hard worker, fair, and competitive. We also added one final item to tap people's global positive versus negative impressions of the target of the rating: competent and likable in general.

For each of the 11 dimensions, participants rated (a) themselves at the initial, later, and final sessions; (b) the other members of their study group at the initial and later sessions (with the order in which they rated others controlled); and (c) how they thought other members of the study group perceived them (reflected appraisals) at the later session. Participants made

Table 1
Means, Standard Deviations, and Zero-Order Correlation Coefficients for Group-Level Variables (N = 83 Groups)

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Mean age	27.10	1.29	—																
2. Team experience	20.41	11.18	.39	—															
3. Group size	5.12	0.48	-.07	.00	—														
4. Work preference	0.20	0.08	-.09	.02	.00	—													
5. Cohort	0.29	0.46	.00	.01	.12	.12	—												
6. T1 liking	7.20	0.67	-.07	.00	.13	.01	.07	—											
7. T1 perceived similarity	5.00	0.70	-.01	-.02	.12	-.21	.02	.53	—										
8. Total T1 congruence	-1.64	0.30	-.13	-.06	.09	-.08	-.09	.09	.33	—									
9. Total appraisal effects	0.03	0.21	.09	-.05	-.15	.01	.07	-.19	-.13	-.50	—								
10. Total verification effects	0.05	0.28	.13	.10	-.02	.09	.14	-.07	-.16	-.29	.05	—							
11. Group identification	5.32	0.57	-.10	.17	.09	.08	.03	.22	.24	.22	-.21	.28	—						
12. Social integration	4.94	0.71	-.08	.26	.06	.24	.06	.19	.24	.19	-.12	.29	.66	—					
13. Group effectiveness	5.12	1.06	-.17	.24	.11	.27	.08	.13	.16	.22	-.22	.29	.65	.86	—				
14. Emotional conflict	2.37	0.78	.08	-.18	-.04	-.31	.10	-.08	-.13	-.08	-.07	-.24	-.53	-.79	-.65	—			
15. Task conflict	2.78	0.50	.05	.02	.09	-.23	.33	.04	-.11	-.12	.05	-.01	-.24	-.52	-.41	.72	—		
16. Group performance: Creative tasks	0.02	0.86	.10	-.08	-.14	.11	-.05	-.22	-.13	.05	-.02	.33	.23	.17	.23	-.19	-.13	—	
17. Group performance: Computational tasks	0.00	0.79	-.04	.13	.08	.14	.15	-.07	.04	-.12	.39	-.10	.00	.09	.08	-.13	-.01	-.02	—

Note. All correlations above .21 are significant at $p < .05$. T1 = Time 1.

each of their ratings relative to other 1st-year MBA students in the university on graduated-interval scales ranging from 1 (bottom 5%) to 10 (top 5%).

Total Self-Verification and Appraisal Scores

The total verification score was the degree to which perceivers' appraisals moved closer over time to the targets' initial self-views. To index total verification, we subtracted the absolute value of the difference between a given target's initial self-views and the average of perceivers' later appraisals of that target from the absolute value of the difference between the target's initial self-views and the average of perceivers' initial appraisals of that target. We then averaged these verification scores across the 11 dimensions to arrive at a total verification score for each target. The total verification score for each group was the average verification score of all members of that group.

In contrast, the total appraisal effect for each group was the degree to which the self-views of targets moved closer over time to the initial appraisals of perceivers. Specifically, we subtracted the absolute value of the difference between the average of perceivers' initial appraisals of a given target and that target's later self-views from the absolute value of the difference between the average of perceivers' initial appraisals of a given target and that target's initial self-views. We then averaged these appraisal scores across the 11 dimensions to arrive at a total appraisal score for each target. The total appraisal score for each group was simply the average appraisal score of all members of that group.

Outcome Variables Measured at Final Session

Emotional conflict in the group. Participants used Jehn's (1995) emotional conflict scale to rate how much friction they perceived among members of their study group, the extent to which personality conflicts were evident, how much tension there was among study group members, and how much emotional conflict there was among group members over the preceding 4 weeks on scales ranging from 1 (*none*) to 5 (*a lot*). In light of the substantial internal consistency of the four items ($\alpha = .92$), we averaged scores on this scale. We then averaged individuals' scores within study groups to create group-level measures for emotional conflict and each of the outcome measures described subsequently. This aggregation was appropriate given that responses of participants within groups were more similar than responses of participants from different groups for each outcome measure (all one-way analysis of variance $Fs > 2.36$, $ps < .001$, all intraclass correlations $> .23$).

Group identification. Participants indicated their agreement with six statements derived from Mael and Ashforth's (1992) organizational identification scale on 7-point scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). We modified the original items to reflect identification with the group rather than the organization (e.g., "When someone criticizes the study group, it feels like a personal insult"). The internal consistency of this scale was substantial ($\alpha = .92$), leading us to average the scores of the six items.

Social integration. We measured perceived social integration using Smith et al.'s (1994) scale. Respondents indicated the extent to which they agreed or disagreed with statements such as "The members of the study group are quick to defend each other from criticism by outsiders" on a series of scales ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The internal consistency of the scale was sufficiently high ($\alpha = .82$) that we averaged responses to the nine scale items.

Composite connectedness to group. For some analyses, it was useful to have a composite measure of connectedness. We first reverse scored emotional conflict responses and then combined them with responses on the group identification and social integration scales. This measure proved to be internally consistent ($\alpha = .78$).

Performance. We collected grades for 14 group projects in several different required courses (all participants took managerial economics,

financial accounting, and statistics; three of the cohorts were also enrolled in operations management and marketing management, two cohorts also took organizational behavior and financial management, and the remaining two also took financial management and an elective course). To strengthen the causal implications of our analyses, we used only grades from group projects that were handed in after the administration of the later session. We collected three or four group project grades for the teams in each cohort (except for one cohort for which we collected two group project grades). We computed z scores for the grades for each course within each cohort and then averaged each group's scores across courses. All told, we were able to obtain approximately 70% of group grades earned after the later session.

We distinguished creative projects (that would benefit from considering divergent perspectives) from computational projects (that would benefit from having a group member with specialized task expertise). For example, one group project in the organizational behavior course required study groups to devise a plan for how a specific company should go about changing its organizational culture. Because there is no quantifiable criterion for such a task, groups benefited from considering a variety of perspectives on this problem. Similarly broad analyses of business problems were critical to performance on group projects in marketing, statistics, and operations management. We accordingly averaged z scores on group project grades from these courses to form a measure of group performance on creative tasks. In contrast, the course project in accounting emphasized quantitative analyses of various companies' financial statements, analyses that students who possessed specialized accounting expertise could solve more or less on their own. We averaged the z scores for the two group projects in the accounting course to form a measure of group performance on computational tasks.

Control Variables

We measured, computed, or derived from student records several variables that might be related to group processes for use as control variables when predicting group outcomes. These variables included average age of members of the group, size of the group, team experience (the average number of months members had worked in a work group in their previous employment), cohort (whether participants had been assigned to one of the two cohorts that took organizational behavior, and therefore received some group training as part of this course, or to one of the remaining five cohorts).

We also computed a measure of total congruence between self-views and appraisals at the initial session so that we could hold constant the potential for group members to display verification or appraisal processes. To calculate total congruence, we computed the absolute value of the difference between each target's self-view and the average of the other group members' appraisals of that target. We then averaged these scores across all 11 dimensions. This resulted in each target having a total congruence score. We then averaged the individual congruence scores across all of the members of a group to create a total congruence score for the group. To facilitate comprehension, we multiplied this total congruence score by -1 so that higher scores indicated greater congruence.

Finally, during the initial sessions, we asked participants how much they initially liked the other group members and how similar they initially felt to them. We also included six questions designed by Wageman (1995) at T1a (before any group interaction) to tap preferences for working in groups. Examples of work preference items were "I like my work best when I do it all myself" (reverse scored) and "I prefer tasks that allow me to work with others." We controlled for group heterogeneity regarding these preferences (i.e., the standard deviation divided by the mean of group members' preference scores averaged across the six items). We examined heterogeneity rather than the group's mean preference because we suspected that the extent to which everyone shared the same work preferences would determine group harmony. To confirm this assumption, we ran

preliminary analyses to ensure that our findings did not change when the mean preference score was added along with preference heterogeneity. They did not.

Results

Identity Negotiation Processes

Self-Verification Effects

Did targets' self-views shape the appraisals of the other group members? Hierarchical linear modeling (HLM) analyses suggested so. For each of the 11 attributes we regressed later appraisals on a random effect for group-level variance and fixed effects for initial appraisals and initial self-views (here, and in the following, the appraisal's measure was the average of the other group members' ratings of the targets, adjusted for target effects; Kenny, 1994). As can be seen in Table 2, there were reliable self-verification effects for eight attributes: intellectual–academic ability, social skills–social competence, creative or artistic ability, leadership ability, cooperative, a hard worker, competency or skill at sports, and likable–competent in general.

Advocates of positivity strivings (e.g., Jones, 1973) would suggest that targets attempted to bring group members to verify their positive but not negative self-views. To test this possibility, for each of the eight traits that evidenced self-verification effects, we hierarchically regressed later appraisals on initial self-views, initial appraisals, a dummy variable that took on a value of 1 when initial appraisals were more positive than initial self-views and a value of 0 otherwise, and the interaction of this dummy variable with initial self-views. If the relative positivity of targets' initial self-views moderated the self-verification effects, then these interaction terms should reach significance (Cohen & Cohen, 1975). The regressions revealed that there were no interactions of initial self-views and the dummy variable that indexed the relative pos-

Table 2

Self-Verification Effects: Time 2 Appraisals Regressed on Time 1 (T1) Appraisals and T1 Self-Views

Trait	Fixed effect		n
	T1 appraisal (β)	T1 self-view (β)	
Academic ability	.20***	.21***	327
Social skills	.45***	.18***	328
Creative ability	.36***	.16***	324
Trustworthy	.17***	−.06	326
Leadership ability	.32***	.16***	325
Cooperative	.17***	.14**	326
A hard worker	.11*	.16***	325
Skill at sports	.48***	.31***	319
Fair	.19***	−.05	319
Competitive	.27***	.07	325
Likable–competent	.20***	.10*	327

Note. Each row represents a hierarchical linear model in which we entered a random effect for group-level variance along with fixed effects for T1 appraisal and T1 self-view. All random-effect estimates of group-level variance were zero after adjusting appraisals for target effects (Kenny, 1994). The beta value reported is the standardized regression coefficient for the simultaneous equation.
* $p < .05$. ** $p < .01$. *** $p < .001$. (All tests for fixed effects are one-tailed.)

Table 3

Appraisal Effects: Time 2 Self-Views Regressed on Time 1 (T1) Self-Views and T1 Appraisals

Trait	Fixed effect		n
	T1 self-view (β)	T1 appraisal (β)	
Academic ability	.51***	.09*	333
Social skills	.58***	.15***	331
Creative ability	.56***	.11**	326
Trustworthy	.48***	−.03	329
Leadership ability	.55***	.11**	327
Cooperative	.52***	.02	329
A hard worker	.56***	−.04	328
Skill at sports	.74***	.11***	323
Fair	.42***	.03	319
Competitive	.58***	.04	328
Likable–competent	.51***	.09*	331

Note. Each row represents a hierarchical linear model in which we entered a random effect for group-level variance along with fixed effects for T1 self-view and T1 appraisal. All random-effect estimates of group-level variance were zero after adjusting each self-view by subtracting the group mean ($N = 83$ groups). The beta value reported is the standardized regression coefficient for the simultaneous equation.
* $p < .05$. ** $p < .01$. *** $p < .001$. (All tests for fixed effects are one-tailed.)

itivity of those self-views (all $ts < 1.39$, all $ps > .10$). Therefore, the data confirm McNulty and Swann's (1994) evidence that self-verification effects are not specific to positive or negative self-views.

Appraisal Effects

To test the idea that the appraisals of the other group members influenced targets' subsequent self-views, we regressed later self-views on a random effect for group-level variance and fixed effects for initial self-views and initial appraisals. As shown in Table 3, perceivers' initial appraisals reliably predicted later self-views of 6 attributes: intellectual–academic ability, social skills–social competence, creative or artistic ability, leadership ability, competency or skill at sports, and likable–competent in general.

In light of Manis's (1955) evidence that appraisal effects occur only when appraisals are more positive than initial self-views, we sought to determine whether our appraisal effects were also restricted to flattering appraisals. For each of the six traits that evidenced appraisal effects, we hierarchically regressed later self-views on initial self-views, initial appraisals, a dummy variable that took on a value of 1 when initial appraisals were more positive than initial self-views and a value of 0 otherwise, and the interaction of this dummy variable with initial appraisals. As in the parallel analyses of self-verification effects, none of the interaction terms reached significance (all $zs < 1.10$), indicating that on all six dimensions targets internalized perceivers' negative as well as positive appraisals (for similar findings, see McNulty & Swann, 1994).

Reflected Appraisal Effects

We wondered whether the effects of perceivers' appraisals on targets' self-views occurred through conscious internalization. To

Table 4

Time 3 Self-Views Regressed on Time 1 (T1) Self-Views and T1 Appraisals Alone and Controlling for Time 2 (T2) Reflected Appraisals

Trait	T1 self-view (β)	T2 reflected appraisal (β)	T1 appraisal (β)	Difference in T1 appraisal coefficient (z)	n
		Fixed effect			
	Self-views and appraisals only				
Academic ability	.51***		.14***		312
Social skills	.55***		.09*		313
Creative ability	.56***		.13**		309
Trustworthy	.45***		.06		310
Leadership ability	.56***		.07†		310
Cooperative	.48***		−.05		311
A hard worker	.51***		.01		311
Skill at sports	.71***		.11***		306
Fair	.34***		−.02		304
Competitive	.60***		.01		311
Likable–competent	.54***		.08*		312
	All effects				
Social skills	.32***	.54***	.01	3.18**	306
Creative ability	.41***	.40***	.11**	1.80†	302
Leadership ability	.33***	.50***	.02	2.45*	304
Skill at sports	.44***	.46***	.05†	3.22**	296
Likable–competent	.31***	.53***	.04	1.85†	306

Note. Each row represents a hierarchical linear model in which we entered a random effect for group-level variance along with the fixed effects for T1 self-view, T1 appraisal and (for the last 5 rows) T2 reflected appraisal. All random-effect estimates of group-level variance were zero after adjusting each self-view by subtracting the group mean ($N = 83$ groups). The beta value reported is the standardized regression coefficient for the simultaneous equation.

† $p < .10$ (marginally significant).   * $p < .05$.   ** $p < .01$.   *** $p < .001$. (All tests one-tailed.)

address this possibility, we first identified those dimensions on which there were significant appraisal effects for final self-views, which is the first requirement for establishing mediation in this context (Baron & Kenny, 1986).[2] As shown in the top half of Table 4, we discovered significant appraisal effects for six dimensions: intellectual–academic ability, social skills–social competence, creative or artistic ability, leadership ability (approached significance), competency or skill at sports, and likable–competent in general. Thus, all of the appraisal effects apparent at the later session were still present at the final session.

The second and third requirements for supporting the reflected appraisal hypothesis are that perceivers' appraisals predict reflected appraisals and that reflected appraisals predict self-view change when perceivers' appraisals are controlled. HLM analyses revealed that the second requirement was fulfilled for social skills–social competence ($\beta = .27$, $p < .001$), creative or artistic ability ($\beta = .19$, $p < .05$), leadership ability ($\beta = .23$, $p < .01$), competency or skill at sports ($\beta = .25$, $p < .001$), and likable–competent in general ($\beta = .21$, $p < .05$). That is, when we regressed later reflected appraisals on a random effect for group-level variance and fixed effects for initial self-ratings and initial appraisals, initial appraisals did predict reflected appraisals with initial self-views controlled. In addition, Table 3 shows support for the third requirement in that later reflected appraisals predicted final self-views when initial self-views and initial appraisals were controlled. The final requirement for evidence of mediation is that

the effect of the independent variable (initial appraisals) must be weaker in the equation with the mediator (later reflected appraisals) than in the equation without the mediator (Baron & Kenny, 1986). The z tests reported in Table 4 demonstrate support for this final requirement; all of the coefficients for initial appraisals in the bottom section are smaller than the corresponding coefficients for initial appraisals in the top section (although marginally so for social skills–social competence and likable–competent in general). Our data thus suggest that reflected appraisals did indeed mediate the impact of perceivers' appraisals on self-view change.

Relative Prevalence of Appraisal and Self-Verification Effects

If identity negotiation is a perfectly symmetrical process, there should be equal numbers of dyads in which appraisal and self-verification effects occurred. To test this possibility, we first broke down each study group into its constituent dyads (i.e., we broke

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[2] We examined final self-views here because we wished to test the causal impact of reflected appraisals collected at the later session on self-views measured subsequently (the results did not differ when we examined later self-views). In all other analyses reported in this article, we examined later self-views because we wanted the measure of self-views to be comparable to the measure of appraisals and we did not collect appraisals at the final session.

5-member groups into 10 target–perceiver dyads, 4-member groups into 6 target–perceiver dyads, and 6-member groups into 15 target–perceiver dyads). After McNulty and Swann (1994), we then classified dyads as exhibiting self-verification effects if the absolute value of the difference between initial self-rating and later appraisal was less than the absolute value of the difference between initial self-rating and initial appraisal (a self-verification effect). We classified dyads as displaying appraisal effects if the absolute value of the difference between initial appraisal and later self-view was less than the absolute value of the difference between initial appraisal and initial self-view (an appraisal effect). We also identified dyads that displayed both of these effects, neither of these effects because identity negotiation was impossible (because initial appraisal equaled initial self-rating), and neither of these effects because they simply did not occur.

Table 5 displays the percentages of dyads that fell into each of the foregoing categories on each of the dimensions for which we found evidence of either self-verification or appraisal effects. Clearly, self-verification effects were the most common outcome, roughly twice as common as appraisal effects. A series of chi-square tests revealed that self-verification effects were more common than the appraisal effects on all eight dimensions considered, all χ^2s(1) > 4.88, all ps < .05.

Identity Negotiation or Accuracy?

Several authors (Jussim, 1991; Kenny & DePaulo, 1993) have discussed a tendency for people to correctly identify the "true" or "actual" characteristics of targets and for their partners to converge on this "truth" subsequently. Such a tendency could masquerade as appraisal or self-verification effects. From this vantage point, the levels of congruence that targets and perceivers attained over the semester may have reflected convergence on the same "objective" reality rather than perceivers influencing targets, or vice versa.

This rival hypothesis is not likely to apply to many of our dimensions (e.g., cooperative, creative, and hard worker) because there is simply no single "objective" measure. Obviously, if there can be no agreement about the criteria associated with various qualities, there can be no "accuracy" processes. On one dimension, however, we were able to obtain two "objective" measures of targets' intelligence: Graduate Management Admissions Test (GMAT) scores and college grade point averages. We then reran the HLM analyses for intellectual–academic ability while controlling for each of these variables. The appraisal and self-verification effects remained significant, except that the appraisal effect merely approached significance when GMAT scores were controlled (p < .12).

The fact that controlling for the GMAT reduced the size of the appraisal effect raises the possibility that perceivers based their appraisals of targets on the actual intelligence of targets (as reflected in GMAT scores) and targets subsequently followed suit. We should add a caveat to this "accuracy" interpretation. Because we have no way of knowing what behaviors targets relied on in rating their intelligence later in the semester, we do not know whether they based their ratings on "objective" indicators of their intelligence (e.g., problem-solving ability) or on efforts of perceivers to bring them to see themselves in ways that confirmed perceiver expectations that happened to correspond to targets' GMAT scores. Therefore, although the fact that controlling for GMAT scores reduced the size of the appraisal effects supports the possibility that accuracy processes were operating, it is not definitive support for accuracy processes because a tendency for perceivers to communicate a GMAT-related appraisal to targets could produce the same effect.

Impact of Identity Negotiation Processes on Group Outcomes

To determine whether self-verification and appraisal effects contributed to group functioning, we conducted a series of regressions. The results displayed in Figure 1 revealed that self-verification effects predicted performance on creative tasks and that appraisal effects predicted performance on computational tasks. Self-verification effects were unrelated to performance on computational tasks, and appraisal effects were unrelated to performance on creative tasks.

Closer examination of Figure 1 hints that feelings of connectedness may have partially mediated the relation between self-verification and performance on creative tasks. That is, self-verification effects predicted creative task performance and connectedness (Baron & Kenny's 1986, first and second requirements for mediation), connectedness predicted performance on creative tasks with self-verification effects controlled (the third requirement for mediation, but note that this effect merely approached significance), and the relation between total self-verification effects and performance on creative tasks was smaller (but still significant) when we controlled for feelings of connectedness (the final test of mediation, but again note that the difference in betas merely approached significance, $z = 1.43, p < .10$). In contrast, there was no evidence that feelings of connectedness mediated the relation between appraisal effects and performance on computational tasks. That is, appraisal effects did not predict feelings of connectedness, feelings of connectedness did not predict performance on computational tasks, and the relation between appraisal effects and performance on computational tasks was not diminished when we controlled for feelings of connectedness. Further details on these regression analyses are displayed in Table 6.

Table 5

Percentages of Dyads Exhibiting Self-Verification Effect Only, Appraisal Effect Only, Both Effects, and Neither Effect From Time 1 to Time 2

Trait	No Time 1 difference	Neither effect	Self-verification effect	Appraisal effect	Both effects
Academic ability	7.0	33.6	31.3	15.2	12.9
Social skills	5.9	33.5	28.2	14.7	17.6
Creative ability	7.1	29.1	26.1	18.1	19.6
Leadership ability	5.9	34.7	27.3	15.7	16.3
Cooperative	7.9	35.0	26.5	12.4	18.2
A hard worker	8.6	30.3	25.8	13.9	21.4
Skill at sports	7.1	33.9	33.6	10.4	14.9
Likable–competent	8.3	35.4	29.2	12.4	14.8

Note. Results are displayed only for those traits for which identity negotiation effects were found in the regression analyses.
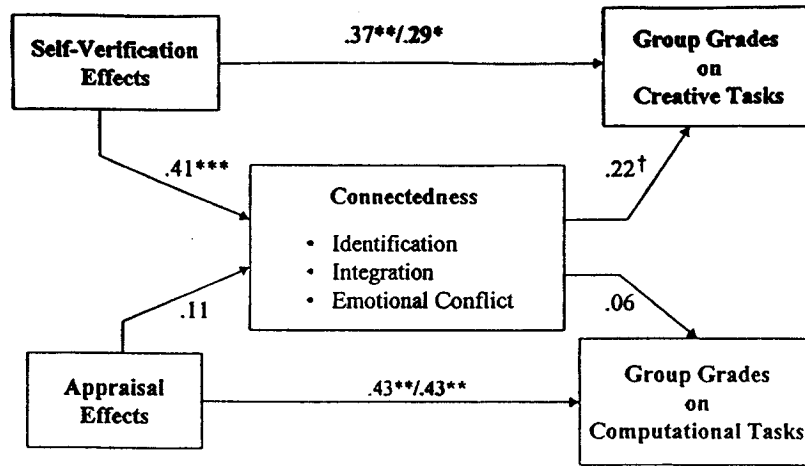
Figure 1. From identity negotiation to group performance. Values above the arrows represent standardized betas. Boldface beta values are based on regressions including the connectedness mediator. † $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$ (one-tailed).

Finally, we worried that the effects of self-verification and appraisal processes on group outcomes might be positivity strivings (e.g., Jones, 1973) in disguise. For example, we wanted to rule out the possibility that the relation between total verification effects and group outcomes was not driven exclusively by a tendency for the appraisals of group members to come into accord with the positive (rather than negative) self-views of targets. To test this possibility, we first examined how often perceivers' appraisals grew more positive versus negative from the initial to the later session. The positivity hypothesis would be corroborated if there were a pervasive tendency for appraisals to grow more positive over time. In reality, there were slightly fewer groups in which mean appraisals (averaged across all attributes and individuals) became more positive ($n = 39$) than groups in which mean

appraisals became more negative ($n = 44$). Moreover, after splitting the sample into these two groups, we reran the analyses in Figure 1. If the positivity hypothesis were correct, then total verification effects should increase connectedness to the group only for those groups in which mean appraisals became more positive. In fact, the opposite pattern emerged. Whereas total verification did not affect connectedness when appraisals grew more positive ($p = .43$), total verification did affect connectedness when appraisals grew more negative ($p < .05$).

A similar pattern emerged when we examined the group performance data. Although self-verification effects did not predict creative task performance among groups in which appraisals increased, the predicted pattern did emerge when we examined groups in which appraisals grew more negative. That is, among

Table 6

Regression Equations Predicting the Effects of Total Appraisal and Verification Processes on Connectedness and Group Performance

Variable	Connectedness	Group performance: creative tasks	Group performance: creative tasks (controlling for connectedness)	Group performance: computational tasks	Group performance: computational tasks (controlling for connectedness)
Mean age	−.21*	.13	.17	−.13	−.11
Team experience	.30**	−.16	−.22†	.21†	.19
Group size	.03	−.11	−.11	.11	.11
Work preference	.27**	.12	.06	.16	.15
Cohort	−.10	−.07	−.05	.11	.11
T1 liking	.06	−.19	−.20	−.11	−.12
T1 perceived similarity	.24†	.00	−.05	.15	.13
Total T1 congruence	.27*	.20	.14	.03	.01
Connectedness			.22†		.06
Total verification effects	.41***	.37**	.29*	−.14	−.16
Total appraisal effects	.11	.00	−.03	.43**	.43**
Overall model F	4.58***	1.81†	1.88†	2.30*	2.08*
R^2	.39	.23	.26	.27	.28
Adjusted R^2	.30	.10	.12	.16	.14
No. of groups	83	71	71	72	72

Note. Each column represents a simultaneous regression model. The beta value reported is the standardized regression coefficient. T1 = Time 1. † $p < .10$ (marginally significant). * $p < .05$. ** $p < .01$. *** $p < .001$. (Tests of directional hypotheses are one-tailed.)

groups in which appraisals grew more negative, the self-verification effect approached significance in predicting creative task performance ($p < .06$) but not when the connectedness variables were partialed out.

As noted earlier, appraisal effects were unrelated to performance on creative tasks. In predicting performance on computational tasks, appraisal effects approached significance when we examined groups in which appraisals grew more positive ($p < .07$), but this dropped to non-significance when connectedness was partialed out. For groups in which appraisals grew more negative, appraisal effects emerged whether or not connectedness was partialed out.

Our data thus suggest that, if anything, self-verification and appraisal effects were most intimately tied to the outcome measures when appraisals grew more negative as opposed to positive. Hence, our self-verification and appraisal effects were not riding on the coattails of participants' positivity strivings.

Discussion

Our findings indicate that identity negotiation processes may have important consequences. For example, when people self-verified by bringing the other group members to see them as they saw themselves, they felt particularly "connected" to the group: They expressed feeling more integrated and identified with the group, and they experienced less emotional conflict. In addition, self-verification processes contributed to productivity on projects that required creativity. These data thus extend previous evidence linking self-verification to relationship intimacy and satisfaction (e.g., Ritts & Stein, 1995; Schafer, Wickman, & Keith, 1996; Swann, Hixon, & De La Ronde, 1992; for a review, see Swann & Pelham, in press).

The fact that self-verification processes still predicted performance on projects requiring creativity when we controlled for feelings of connectedness indicates that self-verification processes, of themselves, improved performance. Apparently, being confirmed by other group members inspired participants to draw on their idiosyncratic views and perspectives. These activities, in turn, reaped rich dividends in the form of novel solutions to the creative task. There was also some tentative evidence that self-verification processes contributed to performance on creative tasks by increasing feelings of connectedness; because the relevant statistical tests merely approached significance, however, this finding must be regarded cautiously.

Conforming to the expectations of the other group members (i.e., appraisal effects) also improved group outcomes, but in a more limited way. For example, appraisal effects led to superior performance on computational projects (but not on creative projects). Why should appraisal effects, whereby the group convinces individual members that they are not who they think they are, facilitate productivity on computational projects? We suggest that for groups to do well on computational tasks, those individuals who are talented on such tasks need to take the lead on the project and those who are less talented must defer to these leaders. Appraisal effects may have facilitated this process.

Our findings are relevant to self-categorization theory. Whereas self-categorization theory stresses the utility of people surrendering their sense of self in favor of identities that are aligned with a group prototype, our data highlight the contribution of precisely the opposite tendency. In particular, our findings suggest that people felt most connected to groups and were most productive on creative tasks not when they relinquished their idiosyncratic self-views but when they brought other group members to validate their self-views. Of course, advocates of self-categorization theory could respond to this finding by pointing out that the theory predicts depersonalization or self-stereotyping (as in appraisal effects) in intergroup contexts and personalization (seeing oneself as a unique individual, as in self-verification effects) in intragroup contexts. Perhaps the climate in our study groups was intragroup in nature and therefore facilitated personalization. Yet, there is one aspect of our data that this argument cannot accommodate: Self-verification effects were positively associated with feelings of connectedness to the group, not negatively associated, as self-categorization theory would predict.

Another aspect of our data that is inconsistent with self-categorization theory is that there were no signs of positivity strivings. In fact, there was a tendency for the relation between performance and self-verification processes to be more apparent when perceivers' evaluations grew more negative. This finding is inconsistent with self-categorization theory's assumption that a desire for positive evaluations drives people's performance in groups.

If self-categorization theory cannot explain some of our key findings, it may be because it was developed with intergroup relations rather than small group processes in mind (Hogg, 1996). Moreover, much of the empirical support for self-categorization theory comes from studies relying on the minimal group paradigm in which people never actually interact with other group members. Conceivably, when engaged in face-to-face interactions, people may be less inclined to indulge their positivity strivings and may instead prioritize their desire for uniqueness (Brewer, 1988) and self-validation. From this vantage point, it is perhaps unsurprising that self-verification processes bolstered people's feelings of connectedness to their groups and creative problem solving.

Although our findings testify to the important contribution of self-verification to group functioning, we can imagine how such processes could undermine group functioning if unchecked. A tendency for people to work to verify self-views such as aggressive, exploitative, or lazy, for instance, could obviously undermine group functioning. Such considerations suggest that a system of checks and balances may operate that keeps the priorities of group members in balance. Perhaps groups function best when appraisal processes encourage group members to verify some self-views but not others.

In addition to establishing a link between identity negotiation processes and group outcomes, our results also offer several new insights into the nature of identity negotiation processes. At the most fundamental level, our data go beyond McNulty and Swann's (1994) evidence of appraisal and self-verification effects in roommate relationships by showing that they also occur in small groups. Closer inspection of our findings reveals both similarities and dissimilarities with those of McNulty and Swann (1994). Both investigations revealed that, with one minor exception, neither the self-verification nor appraisal effects were mediated by the positivity of the self-views or appraisals involved. This is an important finding because it suggests that these processes are not performed in the service of making perceivers or targets feel good about themselves. By default, it seems instead that the desire for psy-

chological coherence and smooth social interactions motivates these processes. A further similarity to McNulty and Swann (1994) is our evidence that if accuracy processes (a tendency for targets or perceivers to correctly identify the "true" characteristics of targets and for their partners to converge on this "truth" subsequently) operated at all, they did not operate to the exclusion of identity negotiation processes.

Our findings also differed from those of McNulty and Swann (1994) in some ways. For instance, our appraisal effects were mediated by targets' reflected appraisals. Conceivably, because their study groups were so important to their academic success, the MBA students may have thought quite deeply about the appraisals that other group members formed of them, and these ruminations magnified the causal role of reflected appraisals in the identity negotiation process. This finding is thus compatible with Rosenberg's (1973) suggestion that reflected appraisal processes are most apt to occur when the perceiver is highly important to the target. Our findings were also unique in that McNulty and Swann (1994) found that self-verification effects were only slightly more common than appraisal effects and we discovered that self-verification effects were roughly twice as common as appraisal effects. This may reflect the fact that the perceivers in our study had only 10 min of exposure to targets before recording their appraisals, whereas McNulty and Swann's perceivers recorded their appraisals several days after meeting targets. Alternatively, it may be that our study group members were particularly concerned with verifying their self-views as a result of the highly consequential nature of the appraisals of the other group members. Indirect support for the latter possibility comes from Swann and Pelham's (1999) evidence that roommates were especially interested in verifying self-views that were highly important.

Whatever the reason underlying our relatively strong self-verification effects may be, our study brings to three the number of studies that have compared appraisal and self-verification effects and found that self-verification effects are more common than appraisal effects (e.g., McNulty & Swann, 1994; Swann & Ely, 1984; but see Major et al., 1988). Why should self-verification effects be more common than appraisal effects? Perhaps it is that targets often have a lifetime of evidence on which to base their self-views. Theoretically, this should increase both the certainty and importance of these self-views and thus the motivation to confirm them. In contrast, appraisals are often based on a relatively meager supply of evidence. In fact, given the paucity of information that our perceivers had as a basis for their appraisals, we believe that it is remarkable that perceivers' initial appraisals predicted targets' final self-views at all. Perhaps perceivers are at some level aware that even impressions formed after only a few seconds are surprisingly accurate (e.g., Albright, Kenny, & Malloy, 1988; Ambady & Rosenthal, 1992, 1993; Kenny, Horner, Kashy, & Chu, 1992; Norman & Goldberg, 1966; Watson, 1989). Alternatively, or in addition, some perceivers may have quickly placed targets into stereotype-based social categories that they strongly associated with stereotype-consistent characteristics.

A Caveat

It is always hazardous to make causal assertions on the basis of correlational data such as ours because it is always possible that some omitted variable was responsible for scores on both the predictor and criterion variables. For example, in our study it may have been that groups with initially high levels of variable X were more cohesive and such cohesiveness made people feel more open; this openness, in turn, led to better outcomes. From this perspective, initial levels of variable X may have fostered high levels of both self-verification and group effectiveness. In an effort to diminish the plausibility of this omitted variable problem, in our regression analyses of group outcome variables we controlled for the initial levels of several variables, including liking, perceived similarity, congruence, participants' team experience, group size, cohort, mean age, and initial work preferences. The results revealed that none of these variables qualified our conclusions. In addition, the panel design used in our study avoided the problems of reciprocal causality inherent in cross-sectional designs: Obviously, criterion variables measured several weeks after predictor variables could not have caused scores on the predictor variables.

We should emphasize, however, that even if self-verification effects are in some sense consequences rather than, or as well as, determinants of group processes, simply demonstrating that groups that are conducive to self-verification tend to be more effective is, of itself, important. Among other things, this finding identifies group processes that are associated with good performance on creative tasks. This finding may also provide a useful perspective on efforts to manage diversity in the workplace, a possibility that we consider next.

Conclusion

Do our data support Buber's contention that self-confirmation processes represent the essence of life itself? Surely not, but we should add that we are hard pressed to imagine how any single investigation could substantiate such a broad assertion. Nevertheless, our data do have several important implications for understanding the nature of the self and its role in the process of identity negotiation. On a very general level, our findings suggest that the self is both a product of social reality and an active architect of that reality. Furthermore, whether people's self-views or the appraisals of others prevail in the identity negotiation processes has important consequences for group outcomes. Consider, for example, our evidence that self-verification processes predicted feelings of connectedness to the group as well as objective performance on creative tasks. Such findings suggest that intrapsychic and interpersonal processes may interact in intriguing and important ways that previous researchers have failed to appreciate.

The results of our research may also speak to current efforts to manage diversity in the workplace and other group settings. In this age of multiculturalism, one challenge is to devise ways of integrating women and members of minority groups into work groups in a manner that allows them to draw on their unique perspectives and at the same time feel that they are part of the group. Our findings suggest that creating an atmosphere that is conducive to self-verification may be one way to meet this challenge. In particular, the ability of workers to make themselves known and understood by their coworkers not only may make them feel more integrated in the group and more optimistic but may also facilitate performance on tasks that require creativity. From this perspective, encouraging people to create psychological niches in their work environments may make people feel better about those environments and optimize productivity as well.

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