INTERPERSONAL RELATIONS AND GROUPS PROCESSES

Seeing I to I: A Pathway to Interpersonal Connectedness

Elizabeth C. Pinel and Anson E. Long Pennsylvania State University, University Park Campus Mark J. Landau University of Arizona

Kira Alexander University of Pittsburgh Tom Pyszczynski University of Colorado at Colorado Springs

The authors introduce the construct of I-sharing—the belief that one shares an identical subjective experience with another person—and the role it plays in liking. In Studies 1–3, participants indicated their liking for an objectively similar and an objectively dissimilar person, one of whom I-shared with them and the other of whom did not. Participants preferred the objectively similar person but only when that person I-shared with them. Studies 4 and 5 highlight the role that feelings of existential isolation and the need for closeness play in people's attraction to I-sharers. In Study 4, people with high needs for interpersonal closeness responded to I-sharers and non-I-sharers with great intensity. In Study 5, priming participants with feelings of existential isolation increased their liking for I-sharers over objectively similar others. The results highlight the importance of shared subjective experience and have implications for interpersonal and intergroup processes.

Keywords: attraction and liking, interpersonal relationships, self-as-subject

Once an hour she had been allowed to come in and grip Joe's unresponsive hand for five minutes before they made her leave again. Upon her return to the waiting room, total strangers would ask, "Did he speak to you? Did he open his eyes?" and she would ask the same of them when they returned from their relatives. They had grown as close as a family through fear and grief and endless hours of just sitting. Although now, she couldn't recall what those people had looked like, even. (Tyler, 2001, p. 158)

Imagine feeling like family with someone whose appearance you do not know. For most sighted individuals, this scenario seems preposterous—the kind of thing that only happens in novels. Even when people spark up a relationship over the

Elizabeth C. Pinel, Department of Psychology, Pennsylvania State University, University Park Campus; Anson E. Long, Department of Psychology, Pennsylvania State University, University Park Campus; Mark J. Landau, Department of Psychology, University of Arizona; Kira Alexander, Department of Psychology, University of Pittsburgh; Tom Pyszczynski, Department of Psychology, University of Colorado at Colorado Springs.

National Institute of Mental Health Grant R01MH067823-02 funded portions of this research. We thank Jennifer K. Bosson for her helpful comments on a draft of this article.

Correspondence concerning this article should be addressed to Elizabeth C. Pinel, 543 Moore Building, Department of Psychology, Pennsylvania State University, University Park Campus, PA 16802. E-mail: ecp6@psu.edu

Internet, they typically request to see a picture once the relationship progresses beyond a certain point. The apparent predilection for information about one's interaction partners extends beyond the visual realm. People expect their loved ones to know certain facts about them: first and last name, eye color, date and place of birth, family structure, among other things. Pity the person who does not know (or worse, forgets) these "vital statistics," for her ignorance often gets interpreted as a sign of disingenuous love.

This emphasis on knowing key facts about loved ones reflects a more general perspective on interpersonal connections, one that regards people as objects about which to learn (e.g., Byrne, Clore, & Smeaton, 1986). According to this perspective, the typical relationship trajectory goes from encountering people, to acquiring information about them, forming an image of them, and finally, arriving at a conclusion as to how much we like them (e.g., Asch, 1946). Certainly, many relationships develop in this very way. Yet Tyler's (2001) protagonist hints at a different path toward the development of an interpersonal bond. Shared subjective experiences (e.g., "fear and grief and endless hours of sitting") can foster intense feelings of closeness-even familial feelings-among people who have virtually no objective information about one another. We believe that these kinds of connections provide an important message about attraction, liking, and relationships: The belief that one experiences a moment in the same way as another person can serve as a powerful interpersonal epoxy. We call this phenomenon, characterized by the sense that one's subjective

experience overlaps with that of at least one other person, *I-sharing*.

The term I-sharing derives from James's (1890/1918) partition of the self into two aspects: the "Me" and the "I." The Me consists of our representation of ourselves, our self-concept. It includes anything pertaining to what we call ours, what we think of ourselves, how we feel about ourselves, what we know about our behaviors, our memories, and so forth—the self-as-object. If we look in a mirror, the Me is represented by the reflection we see.

In contrast to the Me, the I refers to the agentic part of the self, or the self-as-subject. It represents that aspect of our self that, at any given moment, perceives, reacts, interprets, and experiences. If we look in a mirror, the I represents the part of us that does the looking. Whereas the Me tends toward stability, changing only insofar as people add to their representations of self, the I is fleeting in nature; it changes from one moment to the next, as one's experiences change, and leaves what James (1890/1918) referred to as a *stream of consciousness* in its wake.

We refer to *I-sharing* as the subjective experience of having one's self-as-subject (i.e., one's I) merge with that of at least one other person. When people I-share, they believe that they and at least one other person have had the same subjective experience in response to a given stimulus. Whatever one person experiences at a given moment—whether it be the bitter taste of unsweetened chocolate or the mind-numbing challenge of a Zen Koan—she presumes her I-sharer experiences as well.

We hasten to add that the impossibility of directly experiencing the world as another subject means that conclusions about I-sharing could be, and probably often are, wrong. For this reason, I-sharing refers to the subjective sense that one or more people have experienced a given stimulus identically; whether they actually have had the same subjective experience is another matter altogether and beyond the scope of this article. For our purposes here, we consider any time people perceive that they and at least one other person have an identical experience as an instance of I-sharing, regardless of whether their experiences actually are the same.

Because we have no way of directly "getting inside another person's head," we necessarily make an inference each time we conclude that we I-share with another person. This is not to say that people always go through extensive inferential processing to determine whether they I-share with another person, although we suspect that people sometimes do deliberate over this issue (e.g., *I wonder if that kiss meant the same to her as it did to me...*). More often than not, however, the inference of I-sharing probably manifests itself as a very rapid snap judgment based on experientially processing the cues—verbal and/or nonverbal—that the other person emits (cf., Epstein, 1994).

One set of cues likely to lead to the perception of having I-shared consists of reacting identically to the same stimulus. When two or more people simultaneously laugh in response to the same joke, cry in response to the same sad song, say the word "antidisestablishmentarianism" in response to a request for a word that starts with "a," or erupt into a frenzied polka upon receiving a reminder of the approach of Octoberfest, they believe that they have experienced a moment identically, that they have I-shared. Thus we suspect that simultaneity in spontaneous responses to a given stimulus serves as a common cue

for inferences about I-sharing. But people also can believe they I-share with one another when they retrospectively discuss their reactions to an event (e.g., *Could you believe the game last night?*). In addition, people can infer that they I-share with an imagined or implied other, as when they read a poem or hear a song and sense that they intimately understand the author's perspective. Like the characters in Tyler's novel, who all awaited news of their ailing loved ones, people might also draw I-sharing inferences on the basis of whether they happen to find themselves in highly similar circumstances (Hodges, Klein, Veach, & Villanueva, 2004). Finally, as we elaborate on later, people might also infer I-sharing on the basis of similarity with respect to objective features of the self (e.g., ethnicity, place of origin, family composition).

Regardless of how people arrive at the conclusion that they do or do not I-share with another person, we propose that this conclusion contributes heavily to profound feelings of connection. The allure of I-sharing might even cause those who repeatedly experience I-sharing moments with one another to consider themselves "soulmates" or "kindred spirits."

Why would I-sharing influence feelings of attraction so heavily? We offer two, interrelated reasons. First off, although people rarely study it, the self-as-subject—by definition—assumes a vital role in people's experiences. Moreover, people report feeling most alive and content when in a state of subjective self-awareness. Consider Csikszentmihalyi's (Csikszentmihalyi & LeFevre, 1989; Csikszentmihalyi, 1999) work on flow, which suggests that people feel happiest when they fully immerse themselves in a task and lose their usual focus on their objective selves. Brown and Ryan (2003) have made a similar point in their work on mindfulness, a state of heightened awareness of and attention to one's current experience. When mindful, people lose their focus on their Me and instead surrender to being the subject of their moment-to-moment experience. It is important to note that research reveals strong positive associations between mindfulness and a host of well-being measures. In short, we maintain that people's subjective selves play a vital role in their daily lives. From this perspective, it comes as no surprise that similarity with respect to this part of the self can serve as an especially powerful form of similarity that predicts interpersonal attraction.

We also believe that people's fundamental existential isolation underlies people's attraction to I-sharers (see Pinel, Long, Landau, & Pyszczynski, 2004; Yalom, 1980). No matter how well we know a person, we simply cannot know certain things about them firsthand. To experience any stimulus—simple or complex, significant or trivial, short-lived or enduring-we must filter that stimulus (consciously and preconsciously) through our own sense organs and higher level perceptual apparatuses and schemata. We cannot borrow another person's optical or olfactory or auditory nerves to know what something looks like or smells like or sounds like to her, nor can we lend her ours for a peek at the world through our senses. We can turn to others for evidence that they share our experiences, but we cannot get inside their minds to know for sure, nor can they step inside of ours. In short, we can never truly know another person's subjective experiences. Despite the tremendous advances humans have made over the millennia in the ability to

communicate with one another, we still have not uncovered a way to transcend this existential divide.

People do not necessarily think about their existential isolation on a conscious level, and this is probably a good thing, because the inescapable fact of our existential isolation poses a problem for the satisfaction of at least two fundamental self-motives—the need for belief validation (e.g., Festinger, 1954; Solomon, Greenberg, & Pyszczynski, 1991; Swann, 1996)¹ and the need to feel connected to others (Baumeister & Leary, 1995; Bowlby, 1969; Brewer, 1991; Florian, Mikulincer, & Hirschberger, 2002).² Given that we experience reality subjectively, we rely on shared subjective experiences with others as a method of confirming our experiences (see Swann, 1996). But if we cannot verify that other people independently experience reality in the same way as we do, we can never find foolproof validation of our experiences. It comes as no surprise, then, that people suffering from feelings of existential isolation often have a dreadful sense that their world can vanish into thin air (Yalom, 1980).

In the same way that our fundamental existential isolation poses challenges for our need for belief validation, so too does it interfere with our ability to feel connected to others. If we cannot know for sure that another person understands us at the level of how we experience a stimulus, we cannot feel certain that they truly know us. And, if someone professes to love us but does not really know us at our core—at the level of how we experience the world—then we start to suspect that he or she loves an image of who we are rather than our actual self.

Given the potential for existential isolation to interfere with our satisfaction of the needs for belief validation and interpersonal connectedness, it does not surprise us that people have developed a range of behaviors that seemingly serve the purpose of disguising their existential isolation. For example, people regularly overestimate the number of people who share their attitudes (Ross, Greene, & House, 1977); presumably this "false consensus effect" would generalize to estimates of shared subjective experience as well. The tendency to assume similarity of the subjective kind also appears to emerge in our close relationships. Consider recent work by Murray and her colleagues (Murray, Holmes, Bellavia, Griffin, & Dolderman, 2002) that indicates that over time people start to assume that their partners share their emotional states, among other things. We believe that the human state of existential isolation also serves as the primary impetus behind the quest for I-sharers, and that finding I-sharers keeps feelings of existential isolation at bay.

Why? Because I-sharing brings people as close as they can ever come to feeling existentially connected with another person. Although the experience of I-sharing may sometimes be quite illusory, it temporarily eliminates the feeling of being alone in one's own experience of the world. In so doing, I-sharing liberates people from the threat to their needs to know and to feel connected posed by the knowledge of their existential isolation.

Establishing the Phenomenon

A long tradition of social psychological research documents the impact of perceived similarity on liking. Indeed, the theme of similarity unites seemingly distinct research traditions, such as work on attraction (Byrne, 1971; Newcomb, 1961), relationships (Berscheid & Reis, 1998; Murray et al., 2002), stereotyping and prejudice (Allport, 1954; Tajfel & Turner, 1986), balance (Heider, 1958), social identity (Brewer, 1979; Tajfel & Turner, 1986),

self-verification (Swann, 1996), and terror management (Greenberg, Pyszczynski, & Solomon, 1986; Solomon et al., 1991). Note that, despite the range of similarity explored in the above research, it almost exclusively refers to *objective similarity*, or similarity with respect to the Me. As the research suggests, this form of similarity clearly matters to people.

Given the importance people place on their Me (e.g., Swann, 1996), it comes as no surprise that people feel drawn to those with whom they have objective characteristics in common. Nonetheless, we believe that people also feel drawn to those with whom they I-share. Consistent with this claim, Long and Pinel (2005) recently observed that I-sharing experiences increase liking for an objectively dissimilar other in the same way that learning about objective similarities between oneself and a non-I-sharer increases liking for the non-I-sharer.

Thus, sometimes I-sharing and objective similarity can conflict with one another: we can find ourselves believing we share the same subjective experience with someone who, objectively speaking, we regard as quite different from us. A fundamentalist Christian and an atheist can find themselves enjoying the same sunset; a staunch Republican and an equally staunch Democrat can share a laugh. When two objectively different people I-share in these (and other) ways, their disliking for one another might lessen, if only for a moment (see Long & Pinel, 2005). In short, the I-sharing perspective suggests a unique pathway toward interpersonal connectedness, one that might even mitigate the effect of objective dissimilarity on liking.

In Studies 1–3, we used a scenario-based methodology to ask whether both objective similarity and I-sharing combine to predict liking for another individual. We suspected that objective and subjective similarity have an additive effect such that people would prefer an objectively similar I-sharer to an objectively dissimilar non-I-sharer. For these same reasons, we suspected that people would like an objectively similar non-I-sharer just as much as an objectively dissimilar I-sharer because both objective similarity and I-sharing contribute to liking.

Building on Studies 1–3, we designed Studies 4 and 5 with an eye toward uncovering what makes I-sharing distinct from objective similarity. We approach this question from an individual difference perspective in Study 4 and from a situational perspective in Study 5. These studies depart from the scenario-based methodology to enable us to investigate the relation between I-sharing and liking under conditions designed to approximate more closely what people experience in their everyday lives.

Overview of Studies 1-3

We used roughly the same, scenario-based methodology for Studies 1–3, and so we describe our general approach here. Participants read a description of a scenario with which college

¹ Some researchers have made a distinction between the motive to acquire information (e.g., the *self-assessment motive*; Trope, 1983) and the motive to confirm the validity of information that one has already acquired (e.g., the *self-verification motive*; Swann, 1996). Because we believe that these two motives stem from the same, overarching drive to know, we combine them in our analysis.

² Although differences of opinion exist with regard to whether this need for connectedness constitutes a fundamental motive or is derived from more basic needs, few people would deny its existence.

students have a lot of experience: the first day of class. Specifically, while reading the scenario, participants were to imagine that it is the first day of class and that the professor has invited the students to introduce and say something about themselves. Participants received information about two students: one student (of their gender) comes from their hometown and thus is an objectively similar other; another student (also of their gender) comes from another (unspecified) country and thus is an objectively dissimilar other. This constituted our within-participants variable: Participants indicated their liking for both the objectively similar and the objectively dissimilar other.

Participants also received information about which of these two students (the objectively similar or the objectively dissimilar student) I-shares with them: Sometimes the objectively similar other I-shares with them and the objectively dissimilar other does not; sometimes the objectively dissimilar other I-shares with them and the objectively similar other does not. We manipulated this information in the scenario by describing to participants how they, the objectively similar other, and the objectively dissimilar other react to a third student (also of their same gender) who introduces himor herself. The student who reacts the same way as the participant constitutes the I-sharer. In summary, our core design in Studies 1–3 consists of a 2 (I-sharer: objectively similar other, objectively dissimilar other) × 2 (objective similarity: objectively similar, objectively dissimilar), with repeated measures on the last variable. We manipulate other variables along the way, but this 2×2 captures the essence of our design in all three studies. Specifically, we predicted an I-sharer × Objective Similarity interaction. When the objectively similar other I-shared with participants, we expected participants to prefer him or her over the objectively dissimilar other. As noted earlier, this prediction stemmed from our belief that both objective similarity and subjective similarity contribute equally to liking. For this same reason, we did not expect to see a preference for the objectively similar other when the objectively dissimilar other I-shared with participants. In this condition, the objective similarity would make participants feel drawn to the objectively similar other, but the I-sharing would make participants feel drawn to the objectively dissimilar other as well.

Study 1

Method

Participants

Fifty-eight students from a large university in the eastern United States participated in this study in exchange for course credit in a psychology class. Participants completed the study anonymously in mass testing sessions. To preserve this feeling of anonymity, we did not collect data on participants' gender, race/ethnicity, or age.

Procedure

After reading and signing a consent form, participants received a packet containing the experimental materials. The first page of the packet consisted of the scenario described above. Specifically, participants read that it is the first day of class and that the professor has invited them to introduce and say something about themselves. Participants then read that one student who introduces him- or herself (the students in the scenario always share the participant's gender) comes from the participant's hometown and thus is an objectively similar other. In the same scenario, participants read of another student who introduces him- or herself and

who comes from another (unspecified) country and thus is an objectively dissimilar other. Next comes the manipulation of who I-shares with the participants. Specifically, participants read about a third student who describes him- or herself as a fan of a particular musical band. We varied participants' own feelings about the band such that some participants imagine hating the band and others imagine loving the band. Upon hearing the third student mention this band, participants learn that the facial expressions of the objectively similar (same hometown) and the objectively dissimilar (different country) others indicate that one of them shares the participant's reaction to the band and that one of them does not. Thus, whoever shares participants' reaction to the music I-shares with them and whoever does not share participants' reaction to the music does not I-share with them. Note that, in this I-sharing manipulation, we also manipulated the nature of the reaction: either loving or hating the band.

Upon reading the scenario, participants indicated their liking for the objectively similar and dissimilar others. To this end, participants indicated on 10-point scales ranging from 1 (not at all) to 10 (extremely) both how close they believed they would feel with each person and how much they would like to get to know each person better. We counterbalanced the order of these questions, but because we found no main or interactive effects (all Fs < 1) we do not discuss this counterbalancing variable further. Because these items correlated highly and significantly with one another (rs = .64 and .73, respectively), we averaged them to create a composite index of liking.

In addition to measuring liking, we asked participants to indicate the extent to which their taste in music and their hometown "plays an important role in who you are." Participants responded to these two items on the same scale described above. Answers to these questions enabled us to determine whether our effects stemmed solely from differences in importance placed on taste in music versus place of origin. Participants then read a written debriefing form and received credit for their participation.

Results and Discussion

We expected participants' liking for the objectively similar other to vary as a function of whether or not that person also I-shared with them. Specifically, we expected participants to prefer the objectively similar other to the dissimilar other but only when the objectively similar other shared participants' I and the objectively dissimilar other did not. To test this prediction, we submitted liking scores to a 2 (reaction: love, hate) \times 2 (I-sharer: objectively similar other, objectively dissimilar other) \times 2 (objective similarity: objectively similar, objectively dissimilar) analysis of variance (ANOVA) with repeated measures on the last factor. Results of this analysis yielded the predicted I-sharer \times Objective Similarity interaction, F(1, 54) = 10.28, p < .01. No other results approached conventional levels of significance (ps > .11).

Table 1 presents the means for the I-sharer × Objective Similarity interaction. As the pattern of means indicates, participants preferred the objectively similar other to the objectively dissimilar other when the objectively similar other was an I-sharer, F(1,54) = 5.13, p = .03. In contrast, participants preferred the objectively dissimilar other to the objectively similar other when the objectively dissimilar other was an I-sharer, F(1, 54) = 5.15, p =.03. In short, participants' liking for the students in the scenario seemed to hinge on whether or not those students I-shared with them (although we present this result as an interaction, given the nature of our design it amounts to a main effect of I-sharing). Note that although we expected participants to like the objectively dissimilar I-sharer and the objectively similar non-I-sharer equally well, they actually liked the objectively dissimilar I-sharer more than the objectively similar non-I-sharer. At least in this first study, I-sharing information seemed to enable participants to look beyond

Table 1
Liking for Objectively Similar and Dissimilar Others as a
Function of I-Sharing (Studies 1, 2, and 3)

	objec	ng for tively r other	Liking for objectively dissimilar other	
I-sharer	M	SD	M	SD
	Study 1			
Objectively similar other Objectively dissimilar other	6.50 5.53	1.68 1.75	5.70 6.35	1.77 2.13
	Study 2			
Objectively similar other Objectively dissimilar other	7.04 5.65	1.71 1.35	5.65 6.15	1.62 1.35
	Study 3			
Objectively similar other Objectively dissimilar other	6.07 5.53	1.56 1.91	4.98 6.28	1.77 1.84

objective similarity (or dissimilarity) as determinants of their liking for the targets.

Could these results simply reflect a tendency for participants to care more about their taste in music than their hometown? To address this possibility, we conducted a within-participants t test comparing the importance participants place on their taste in music to the importance they place on their hometown. This analysis revealed that participants place less importance on their taste in music (M = 5.22, SD = 2.29) than on their hometowns (M = 6.21, SD = 2.51), F(1, 58) = 4.83, p = .03. It is important to note that these results rule out the possibility that our liking findings stemmed from a tendency for people to place more importance on their taste in music than on their hometown.

Do the results of Study 1 indicate that I-sharing plays an equally important role as objective similarity (or perhaps an even more important role) in determining liking? Although our results certainly point to this possibility, one might argue that the I-sharing dimension used in Study 1 implicates people's Me just as much as it implicates their I. Although one's taste in music provides information about how one might subjectively react to musical stimuli (and thus the I), it also can represent an important part of how people see themselves (as in *I am a Neil Young fan*). If so, perhaps the results of Study 1 say more about the extent to which music tastes pervade both the Me and the I than they do about the role I-sharing plays in our liking for objectively similar others. We conducted Study 2 to address this issue.

Study 2

Method

In this second study, we sought to rule out the possibility that the results of Study 1 reflect the joint influence of subjective and objective aspects of the self by focusing on a more in-the-moment form of I-sharing: giggling (or not giggling) immediately upon hearing someone speak. Giggling constitutes a common spontaneous and uncontrolled subjective reaction that is unlikely to be central to a person's self-concept (for a similar perspective, see Fraley & Aron, 2004). In all other respects, we modeled this study after Study 1.

Participants

Fifty-four students from a large university in the eastern United States participated in this study in exchange for course credit in a psychology class. Participants completed the study anonymously in mass testing sessions. To preserve this feeling of anonymity, we did not collect data on participants' gender, race/ethnicity, or age.

Procedure

We used the same methodology as in Study 1, but we changed the I-sharing dimension to giggling instead of music preference. To accomplish this, we asked participants to imagine that the third student introduces him- or herself in a voice that either does or does not make them giggle. We manipulated who I-shared with the participants: Sometimes the objectively similar other shared participants' response to the third student (and thus I-shared with them); sometimes the objectively dissimilar other did.

We used the same dependent measures described in Study 1, but we also included manipulation checks to determine the extent to which participants believed their hometown and sense of humor implicated their objective and subjective selves. Specifically, participants completed two separate items pertaining to their hometown and two separate items pertaining to their sense of humor. One of these items asked them the extent to which their hometown and their sense of humor implicates or says something about their background, race/ethnicity, age, social class, and family structure (i.e., their objective self, or their Me) and one asking them the extent to which their hometown and their sense of humor implicates or says something about how they perceive, think about, react to, and interpret the world (i.e., their subjective self, or their I). Participants made these ratings on 10-point scales ranging from 1 (not at all) to 10 (extremely).

Results and Discussion

Manipulation Check

Before conducting our main analyses, we first assessed whether participants perceived giggling to implicate their subjective selves more so than their objective selves. If so, we could be confident that participants perceived someone who giggled (or did not giggle) when they did as an I-sharer. To answer this question, we submitted participants' ratings on our two manipulation check items to a 2 (reaction: giggle, no giggle) \times 2 (I-sharer: objectively similar other, objectively dissimilar other) \times 2 (self-aspect: hometown, sense of humor) \times 2 (implicated self: objective, subjective) ANOVA with repeated measures on the last two variables. It is important to note that this analysis revealed a statistically significant Self-Aspect \times Implicated Self interaction, F(1, 50) = 29.45, p < .01. Participants indicated that their sense of humor implicated their subjective self (M = 7.13, SD = 2.03) more than their objective self (M = 5.94, SD = 2.47), F(1, 50) = 20.52, p < .01.In contrast, they indicated that their hometown implicated their objective self (M = 6.39, SD = 2.39) more than their subjective self (M = 5.57, SD = 2.42), F(1, 50) = 1.63, p = .21, although this difference was not statistically significant. The only other effect to approach significance in the overall ANOVA was a main effect of self-aspect, F(1, 50) = 3.88, p = .054 (all other ps > .27). Participants tended to rate their sense of humor as implicating both their objective and subjective selves more so than their hometown (Ms = 6.54 and 5.97, respectively).

Liking

Confident in our manipulations, we went on to test our main predictions. As in Study 1, we expected participants' preference for the objectively similar other over the objectively dissimilar other to depend on who I-shared with them. To test this prediction, we submitted liking scores to a 2 (reaction: giggle, no giggle) \times 2 (I-sharer: objectively similar other, objectively dissimilar other) \times 2 (objective similarity: objectively similar, objectively dissimilar) ANOVA with repeated measures on the last variable. Results of this analysis yielded the predicted I-sharer \times Objective Similarity interaction, F(1, 50) = 9.34, p < .01. No other results reached conventional levels of significance (ps > .11).

Table 1 presents the means for the I-sharer \times Objective Similarity interaction, which replicated the critical finding from Study 1. Participants preferred the objectively similar other to the objectively dissimilar other only when the similar other I-shared with them, F(1, 50) = 10.20, p < .02. Unlike in Study 1, participants showed no preference for the objectively similar other or for the objectively dissimilar other when the objectively dissimilar other was an I-sharer, F(1, 50) = 1.23, p = .27. In short, with our new operationalization of I-sharing that is highly unlikely to represent aspects of the individual's self-concept, or Me, we still observed that participants' preference for the objectively similar student in the scenario hinged on whether or not that student I-shared with them.

Study 3

Taken together, the results of Studies 1 and 2 increase our confidence that I-sharing offers a distinct pathway to interpersonal connectedness, one that has the capacity to undo people's distaste for dissimilar others (Rosenbaum, 1986). In Study 1, we actually observed that I-sharing information alone predicted liking for others: Regardless of objective similarity information, people preferred the I-sharer to the non-I-sharer. In Study 2, we observed that people liked objectively similar and objectively dissimilar others equally well when the objectively dissimilar other I-shared with them. In addition, people preferred the objectively similar other to the objectively dissimilar other when the objectively similar other I-shared with them. Thus, in both studies, I-sharing with an objectively dissimilar other negated people's preference for an objectively similar other, and in Study 1 it even contributed to a reverse preference.

In Study 3, we examined a potential boundary condition of the effects of I-sharing. Specifically, we wondered whether people's preference for I-sharers depends on the normativeness of their subjective reactions to the social situation. Perhaps people prefer I-sharers only when they perceive themselves to be alone in their subjective reaction to an event. If people perceive their reaction to be quite common or normative, perhaps their preference for I-sharers disappears. It is also quite possible that the normativeness of one's subjective reactions has no impact on people's liking for I-sharers. Because of the threat to important self-needs posed by feelings of existential isolation, we may like anyone who shares our subjective experience and dislike anyone who does not, regardless of the normativeness of our subjective experience. To test the possible effects caused by normativeness of the subjective reaction, we replicated Study 2 but added a manipulation of the normativeness of the participant's response. We expected to see the same interaction observed in the previous two studies, but we wondered whether our additional independent variable would moderate this interaction.

Method

Participants

One hundred and one students from a large university in the eastern United States participated in this study in exchange for course credit in a psychology class. Participants completed the study anonymously in mass testing sessions. To preserve this feeling of anonymity, we did not collect data on participants' gender, race/ethnicity, or age.

Procedure

Study 3 used the same design as Study 2, with the added manipulation of the normativeness of participants' reaction. Some participants learned that, upon hearing the third student's voice, the rest of the class giggles. Others learned that, upon hearing the third student's voice, the rest of the class does not giggle. We used the same dependent measures described in Study 2.³

Results and Discussion

As in Studies 1 and 2, we expected participants' preference for the objectively similar other to depend upon whether or not that person also I-shared with them. We wondered, however, whether the normativeness of the participants' response would qualify this effect. To this end, we submitted liking scores to a 2 (reaction: giggle, no giggle) \times 2 (normative response: giggle, no giggle) \times 2 (I-sharer: objectively similar other, objectively dissimilar other) \times 2 (objective similarity: objectively similar, objectively dissimilar) ANOVA with repeated measures on the last variable. Results of this analysis yielded a main effect of objective similarity, F(1, 93) = 5.09, p = .03, that was qualified by the predicted I-sharer \times Objective Similarity interaction, F(1, 93) = 32.85, p < .01. The normativeness of the response did not moderate these results (F < 1).

Table 1 presents the means for the I-sharer \times Objective Similarity interaction. Participants preferred the objectively similar other to the objectively dissimilar other when the objectively similar other was an I-sharer, F(1, 93) = 31.62, p < .01. In contrast, participants preferred the objectively dissimilar other to the objectively similar other when the objectively dissimilar other was an I-sharer, F(1, 93) = 6.10, p = .02. Once again, we observed a reversal of people's preference for similar to dissimilar others (what amounts to a main effect of I-sharing). In Study 3, as in Study 1, I-sharing alone seemed to account for people's liking for others. Although we regard this replication as exciting and potentially illustrative of the power of I-sharing, from our perspective, the critical finding from all three studies consists of the negated preference for a similar other when a dissimilar other is an

 $^{^3}$ The analyses conducted on our manipulation check replicated those described in Study 2, F(1, 93) = 14.96, p < .01. We do not go into the details here

⁴ Also in this analysis, we observed a between-subjects effect of I-sharing dimension that approached significance, F(1, 93) = 3.70, p = .06. Participants liked both targets better when participants themselves giggled (M = 6.12) than when they did not giggle (M = 5.59). In addition, we observed a significant effect for normativeness of response, F(1, 93) = 3.86, p = .05, such that participants liked both targets better when everyone in the class giggled (M = 6.12) than when no one in the class giggled (M = 5.58). No other results reached conventional levels of significance (ps > .21).

I-sharer. So why the reversal? Although we have many theoretically driven ideas about when one might show an especial preference for an I-sharer (see Study 5), we suspect that our results from Studies 1 and 3 have more to do with the methodology we adopted. In a scenario-based study, the salience of objective similarities might pale in comparison to the salience it would assume in a more experimentally real investigation. Such an analysis begs, of course, for more experimentally real investigations, which we conduct in Studies 4 and 5.

We also found in Study 3 that people's liking for I-sharers did not depend on whether their subjective experience of a stimulus constitutes a normative response. At first blush, this finding might seem at odds with our theorizing about existential isolation and the role it plays in determining our preference for I-sharers over those who do not share our I. Recall that we proposed that people's inability to experience the world as other people experience it—their existential isolation—accounts for the appeal of I-sharing. Because I-sharers experience a moment identically to us, they bring us as close as we can ever get to feeling existentially connected.

If existential isolation accounts for our liking for I-sharers, one might expect that those people who have the most unique, nonnormative experiences would feel the most existentially isolated and thus exhibit the greatest levels of liking for I-sharers. Yet this did not occur in Study 3. We hesitate to make too much out of this null result and await future research to determine its reliability and boundary conditions. These reservations notwithstanding, we can think of several reasons why we observed no effect of the normative variable in the current study. For one, it is possible that participants frowned upon the target who had the nonnormative response and that this general distaste for nonnormative behavior counteracted the effects of I-sharing.⁵ Looking at this issue from an individual difference perspective, it seems likely that individual differences would moderate reactions to "standing out" by having a nonnormative response. It also seems possible that our scenariobased methodology did not have the level of experimental realism needed to create in participants feelings of existential isolation. Finally, a distinction most likely exists between what drives people to want to I-share and what happens once they experience it. Specifically, although feelings of existential isolation may intensify the need to I-share, perhaps everyone—whether feeling existentially isolated or not—responds favorably to an I-sharer.

Study 4

Although the results of Studies 1–3 provide initial support for our proposition that I-sharing promotes liking, we wanted to test this idea in the context of a more involving, realistic "online" interaction with another person. In addition, we sought to provide further evidence for the unique role I-sharing plays in liking. We reasoned that if I-sharing satisfies needs for connectedness by mitigating people's feelings of existential isolation, people's reactions to I-sharers should depend on their level of connectedness: People with especially strong needs for connectedness should like most emphatically those with whom they I-share. Because objective similarity plays less of a role in fostering feelings of existential connectedness, we did not expect people's needs for connectedness to moderate their reactions to objectively similar others.

With this in mind, we chose emotional reliance as our individual difference of interest (see Hirschfeld, Klerman, Gough, Barrett,

Korchin, & Chodoff, 1977). We reasoned that people with high levels of emotional reliance have especially high needs for closeness, given that they endorse items such as *I would be completely lost if I didn't have someone special* and *I have always had a terrible fear that I will lose the love and support of people I desperately need*. To the extent that I-sharing promotes feelings of closeness then, people high in emotional reliance should show a particularly pronounced tendency to like those with whom they I-share and to dislike those with whom they do not. Conversely, people with especially low levels of emotional reliance—people who express little desire for closeness—should show little, if any, preference for I-sharers. We tested these notions in Study 4.

We provided participants who varied in their levels of emotional reliance with information about another individual. This information pertained either to the dimension of I-sharing or to the dimension of objective similarity (dimension condition). We varied perceptions of similarity such that some participants learned that they were similar to the other individual on the dimension of interest and others learned that they differed from the other individual on the dimension of interest. Thus, those participants in the I-sharing condition learned that they either did or did not I-share with the other individual; those participants in the objective similarity information condition learned that they were or were not objectively similar to the other individual. We predicted that among participants high in emotional reliance, I-sharing would have a greater effect on their liking for the other person than would objective similarity.

Method

Participants

Ninety-three undergraduate students (16 men and 77 women) at a university in the western United States participated in the study in exchange for extra credit in their introductory psychology class. Participants ranged in age from 18–48, with a median age of 22. All participants completed the study in individual testing sessions.

Procedure

A male experimenter greeted participants outside the cubicle where the data collection took place. From this vantage point, participants could clearly see four cubicle doors, one of which the experimenter left ajar. This setup helped bolster our cover story that the experiment involved 4 participants.

Having escorted the participants inside their individual cubicle, the male experimenter introduced them to a study on "personality and the impressions people form of others on the basis of electronic information, such as that exchanged through email, instant messaging, and chat rooms." Participants learned that their computer was connected to the three other computers in the adjacent cubicles and that 3 other participants occupied those cubicles.

At this point, the experimenter also provided participants with a description of the tasks to follow, and once the experimenter left the cubicle, participants received all remaining instructions, via computer, in written form. Specifically, the experimenter explained to participants that after they completed a brief packet of personality questionnaires they would

⁵ We thank an anonymous reviewer for calling this possibility to our attention

⁶ We did not observe any statistically reliable main or interactive effects of gender, and so we do not discuss this variable further.

engage in an interactive task with a randomly selected and anonymous communication partner in a neighboring cubicle. We intentionally left the gender of the communication partner ambiguous.

The experimenter stressed that during this interactive task participants should pay special attention to their partner's responses, as these would help them form an impression of their partner. He explained that following this interactive task, the participants' computer connection to their partner's computer would terminate and they would have an opportunity to report their impression of their partner. The experimenter assured participants that their partner would not have access to their responses to the impression questions. After verifying that participants understood the instructions, the experimenter secured their informed consent and gave them a packet of questionnaires to complete.

Once the experimenter left the room, participants completed their packet of questionnaires, which included a measure of emotional reliance. The packet also included filler questionnaires, which helped to both keep participants' level of emotional reliance from becoming salient and curtail any suspicion that the emotional reliance measure might arouse.

To measure emotional reliance, we used the emotional reliance subscale of Hirschfeld et al.'s (1977) measure of interpersonal dependency. This scale taps the desire for contact, approval, and attention from emotionally supportive others, as well as a sense of dread over the loss of that support (e.g., "I have always had a terrible fear that I will lose the love and support of people I desperately need."). Participants respond to the 17 items comprising this measure on a 4-point scale ranging from 1 (not characteristic of me) to 4 (very characteristic of me). The scale showed adequate reliability ($\alpha = .86$), so we summed the items to determine participants' emotional reliance scores.

When participants arrived at the last page of the packet, they found instructions to turn on the computer monitor and to follow the instructions on the screen. The computer instructed participants to advance through the program by clicking specified features on the screen. In addition, participants read that after sharing some personal information they would be randomly and anonymously connected to their communication partner, complete a short interactive task, and then privately rate their impression of that person following termination of the connection.

After participants received these instructions, four simple demographic or descriptive questions (e.g., *What is your major?*) appeared on the screen. Participants chose which of seven possible answers (one of which was always *none of these*) best described them. Next, the program ostensibly assigned them, on a random basis, to interact electronically with another "participant." At this point, the computer randomly assigned participants to exchange either objective similarity information or I-sharing information with their partner.

Manipulating information received. Participants assigned to exchange objective similarity information with their partner completed a series of 10 I am... statements. These statements required participants to choose one of two response options that best described their self-concepts or their objective self. Specifically, after each I am... statement, participants viewed two response options representing opposing traits. We took these traits (silly-serious, assertive-soft-spoken, gentle-boisterous, deliberate-spontaneous, competitive-cooperative, quiet-outspoken, cautious-risky, ambitious-laid-back, extravagant-thrifty, yielding-dominant) from Campbell (1990) to ensure that they had equal levels of social desirability. For each I am... statement, participants clicked the response option that best described them

Participants assigned to exchange I-sharing information with their partner provided their gut-level and first response to the first half of compound words. On 10 consecutive trials, participants viewed boxes containing the first half of a compound noun (e.g., photo—), and they then selected the first of four possible words (e.g., graph, genic, copy, finish) that immediately appealed to them. We reasoned that participants would interpret such instantaneous completions as reflecting people's in-the-moment experience of the compound words. Thus, the extent to which their communication

partner expressed similar word completions would provide some insight into the extent to which he or she I-shared with them.

Manipulating partner's similarity. In both information conditions, participants viewed their communication partner's ostensible response for each trial (either the I am . . . statement or the word completion). Specifically, the words Your communication partner's response appeared on the right side of the screen, along with the partner's ostensible response. In the similar condition, the partner gave the same response as the participant on 7 out of 10 trials. In the dissimilar condition, the partner gave the same response on only 3 of 10 trials. So that participants would experience their communication partner's responses as though they occurred at the same time as their own, we programmed the communication partner's responses to appear virtually instantaneously after the participant's provision of a response.

Measuring liking. After participants completed either the "I am" statements or the word completion task, the computer ostensibly terminated their connection to their communication partner so that they could privately provide their impression of this person. Before participants indicated their liking for their partner, we provided them with their partner's ostensible responses to the demographic questions described earlier. All participants read the same neutral information about their partner (e.g., that he or she majors in psychology; that he or she spent the previous summer working). We included this procedural element to give participants the feeling of having adequate information on which to base their judgment of their partner (e.g., Yzerbyt, Schadron, Leyens, & Rocher, 1994). After receiving this information, participants responded to five questions assessing their liking for their communication partner. Specifically, participants indicated (a) how much they liked their partner. (b) how close they felt to him or her. (c) whether they could imagine becoming his or her friend, (d) how comfortable they would feel meeting their partner, and (e) whether they would look forward to meeting him or her in the future. Participants responded to these items on a 7-point scale ranging from 1 (not at all) to 7 (very much). These items revealed satisfactory internal reliability ($\alpha =$.73), so we averaged them to create a composite liking measure.

Once participants completed the liking measures, the computer instructed them to alert the experimenter. The experimenter then probed participants for suspicion, debriefed them, and thanked them for their time. Only 5 participants expressed any suspicion, but we chose to retain these participants' data because removing these cases from the data analyses did not alter the results in any notable way.

Results

We expected participants with high levels of emotional reliance, as compared with those with low levels of emotional reliance, to feel especially attracted to those with whom they I-share and especially unattracted to those with whom they do not (see Rosenbaum, 1986). Given the continuous nature of the emotional reliance measure, we tested these predictions with a simultaneous regression analysis. Specifically, we regressed liking onto (a) emotional reliance scores (after centering them), (b) information condition (with I-sharing information coded as 0 and objective similarity information coded as 1), (c) similarity condition (with similar coded as 0 and dissimilar coded as 1), (d–f) all two-way interactions between predictors, and (g) the three-way interaction.

Replicating previous work on similarity and liking, we observed a main effect of similarity condition ($\beta = -.32$, t(85) = 2.44, p = .02),

 $^{^{7}}$ Participants also completed Aron et al.'s (1992) measure of inclusion of other in self, which requires participants to indicate which of seven sets of overlapping circles captures the way they feel about their partner. The regression we conducted on Aron et al.'s (1992) measure revealed no statistically significant effects (all ps > .19). We therefore do not discuss this variable further.

such that participants liked their communication partners more in the similar than in the dissimilar condition. A statistically significant Similarity Condition \times Information Condition interaction ($\beta = .33$, t(85) = 2.03, p = .05) qualified this effect, which was further qualified by a significant three-way Emotional Reliance \times Similarity Condition \times Information Condition interaction ($\beta = .50$, t(85) = 2.89, p < .01). We report all remaining effects in Table 2.

To interpret the three-way interaction, we first ran separate regression analyses for each similarity information condition. Confirming our predictions, in the I-sharing information condition, we observed main effects of similarity ($\beta = -.30$, t(85) = 2.5, p =.02) and emotional reliance ($\beta = .43$, t(85) = 2.17, p = .04) and an interaction between the two ($\beta = -.82$, t(85) = 4.15, p < .01). Simple slopes tests and the predicted values plotted in Figure 1 demonstrate that people high in emotional reliance liked the I-sharer more so than did people low in emotional reliance (β = .43, t(85) = 2.17, p = .04), and people high in emotional reliance disliked the non-I-sharer more so than did people low in emotional reliance $(\beta = -.6, t(85) = 3.99, p < .01)$. A comparison of predicted values at one standard deviation above and below the mean for emotional reliance revealed that, whereas people high in emotional reliance preferred the I-sharer to the non-I-sharer (β = -.8, t(85) = 4.38, p < .01), people low in emotional reliance did not $(\beta = .2, t(85) = 1.25, p = .22)$. Finally, as can be seen in Figure 2, no effects reached conventional levels of significance in the objective similarity information condition (ts < 1).

Discussion

As expected, participants high in emotional reliance, but not those low in emotional reliance, seemed especially sensitive to I-sharing information. Participants high in emotional reliance liked the I-sharer more than the non-I-sharer. Moreover, compared with participants low in emotional reliance, these participants liked the I-sharer more and the non-I-sharer less.

That those people with especially high needs for closeness exhibited dramatic fluctuations in liking depending upon whether they I-shared with their partner, but no such fluctuations as a function of objective similarity condition, bolsters our claim that I-sharing can be distinguished from objective similarity with regard to the role it plays in satisfying people's need for connectedness. To the extent that I-sharing promotes feelings of closeness and connection, it follows that individuals with especially high needs for intimacy and connection would be most affected by such experiences.

Study 5

Study 4 demonstrates that people high in emotional reliance react more strongly to I-sharing information (but not more strongly to objective similarity information) than those low in emotional reliance. We believe that the feelings of existential connectedness brought on by I-sharing explain the profound effect it has on those individuals with an especially strong desire for connectedness (e.g., those high in emotional reliance or perhaps those with anxious attachment styles; see Fraley & Aron, 2004). Given the fundamental existential isolation that characterizes all humans, however, we should find that reminders of this existential isolation cause most people to find I-sharing experiences compelling. It follows that making salient people's fundamental existential isolation should increase their liking for an I-sharer. We designed Study 5 with this in mind.

We manipulated feelings of existential isolation in Study 5 by asking participants in an existential isolation prime condition to recall, as vividly as they could, a time when they felt existentially isolated. Specifically, participants in this condition recalled a time when their experiences differed substantially from the experiences of those around them. We compared participants in this condition to those in two remaining conditions: the boredom prime condition that was designed to control for general feelings of negativity that our existential isolation prime might have triggered and the neutral prime condition that served as a baseline control group. Those in the boredom prime condition recalled vividly a time when they felt extremely bored, and those in the neutral prime condition recalled vividly their morning routine. We predicted that people in the existential isolation prime condition, as compared with those in the remaining conditions, would show an especial liking for an I-sharer.

With our manipulation of existential isolation, we also returned to the question of when people would prefer an objectively dissimilar I-sharer to an objectively similar non-I-sharer. Because of I-sharing's unique ability to ease feelings of existential isolation, we expected participants to demonstrate a clear preference for the I-sharer (regardless of objective similarity level) when they felt existentially isolated. Barring any circumstance that fosters deepseated feelings of existential isolation, we suspect that it takes more than one fleeting instance of I-sharing for people to overcome the importance they place on objective similarity (Byrne, 1971). Although I-sharing tended to have this effect in Studies 1 and 3, as noted earlier, we credit the methodology we used in those studies with these results. As we suggested earlier, a scenario-based methodology could render the objective similarity informa-

Table 2
Summary of the Simultaneous Regression Predicting Liking (Study 4)

Variable and interaction	В	SE B	β	t(85)
Information condition ^a	-0.15	0.25	08	-0.61
Similarity condition ^b	-0.60	0.25	32	-2.44*
Emotional reliance	0.05	0.02	.44	2.13*
(Information) × (Emotional Reliance)	-0.05	0.03	27	-1.46
$(Information) \times (Similarity)$	0.73	0.36	.33	2.03*
(Similarity) × (Emotional Reliance)	-0.12	0.03	79	-4.07***
$(Information) \times (Similarity) \times (Emotional Reliance)$	0.13	0.04	.50	2.89**

Note. R = .49; $R^2 = .24$; F(7, 85) = 3.77, p < .001.

^a Objective = 1; subjective = 0. ^b Similar = 0; different = 1.

^{*} p < .05. ** p < .01. *** p < .001.

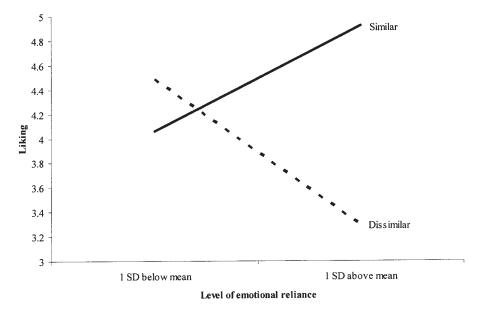


Figure 1. Liking for partner in subjective information condition as a function of emotional reliance and similarity.

tion less salient than it tends to be in everyday life, thus allowing I-sharing information to exert an even more powerful effect than it ordinarily plays in liking. A more experimentally real paradigm, such as the one used in Studies 4 and 5, allows us to determine whether, under baseline conditions, people prefer an objectively dissimilar I-sharer to an objectively similar non-I-sharer.

In summary, we manipulated feelings of existential isolation in Study 5 as well as whether participants interacted with an objectively dissimilar I-sharer or with an objectively similar non-I-sharer. Because of I-sharing's unique ability to ease feelings of existential isolation, we expected that, relative to participants in the other two groups, participants in the existential isolation prime condition would exhibit the strongest (and perhaps the only) preference for the I-sharer.

Method

Participants

Seventy-one undergraduates (21 men, 49 women, and 1 unspecified) attending a university in the western United States participated in the study in return for extra credit in their psychology class. Participants ranged in age from 17 to 51, with a median age of 18. We randomly assigned participants to conditions in a 3 (prime: existential isolation, boredom, neutral) \times 2 (target: objectively dissimilar I-sharer, objectively similar non-I-sharer) design, with repeated measures on the second variable.

Procedure

The procedure for Study 5 mimicked that of Study 4 with a couple of exceptions. Specifically, before participating in the "chat room simulation," participants underwent the prime manipulation. A female experimenter described this portion of the study as a memory task that specifically assessed participants' capacity for "lucid memory." She defined *lucid memory* as the ability "to recall vividly emotions associated with past events." She further explained that although some people have difficulty retrieving these types of memories, those who put a lot of effort into the task receive higher scores on the lucid memory task. We underscored this

point so as to encourage participants to take the task seriously and thus increase the effectiveness of our manipulation.

Following these initial instructions for the lucid memory task, participants received a packet corresponding to one of three prime conditions. Each packet asked participants to recall and write about a specific life situation and the emotions aroused by that experience. Participants in the existential isolation prime condition read the following instructions: *You can be lonelier in a crowd than by yourself. With this saying in mind, please now think of a situation in your past when you felt disconnected or very isolated from the other people around you.* The instructions went on to provide some examples of this kind of situation, including: standing up for something only you believe in, watching a movie you do not think is funny when everyone else is laughing, or not being included in a private joke.

In contrast to those in the existential isolation prime condition, those in the boredom prime condition thought about a "situation in [their] past when [they] felt extremely bored or uninterested in something that [they] had to do." Again, we offered them examples, such as writing a term paper for a class they do not like, waiting in a doctor's office or an airport, or listening to an unenthusiastic speaker. As noted above, we included this condition to control for the possibility that unpleasant feelings aroused by the existential isolation prime, and not by existential isolation itself, might influence participants' liking for their communication partners.

We also asked a second control group of participants (i.e., those in the neutral prime condition) to write about their morning routine. Here, we provided participants with examples of the types of activities they might include, such as the time at which they wake up, what they do to get ready, and how they get to school.

After participants completed this prime manipulation, they completed several questions relating to self-professed ability for remembering the event and emotions effectively. Specifically, participants indicated how well they: remembered the situation, felt the same emotions now that they did then, and remembered small details of past events. Participants answered each of these items on a 5-point scale ranging from 1 (not at all) to

⁸ As in Study 4, we did not observe any statistically reliable main or interactive effects of gender and so we do not discuss this variable further.

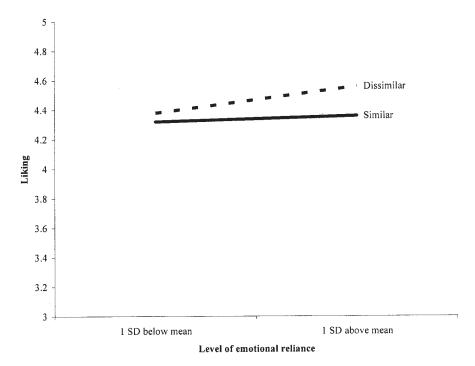


Figure 2. Liking for partner in objective information condition as a function of emotional reliance and similarity.

5 (very well). These items served to bolster our cover story about the memory task.

Next, participants began the chat room simulation. At this point the experimenter informed them that they would be anonymously connected, via computer, to two other participants located in cubicles next to their own. Participants learned that they would complete a short interactive task with these other participants (described as their "communication partners") and then provide their impressions of their communication partners. To assure participants of their anonymity, we provided them with a genderneutral screen name ("Jamie"). The experimenter stressed to the participants that she was interested in the impressions they formed of their partners as well as their responses to the specific items in the interactive task. She explained that some items would require them to tell the other participants something about themselves and that their answers to these items would reflect how they viewed their own personal traits. She went on to say that other items would require them to complete a word, and that their answers to these word completions would reflect how they perceive and respond to the world around them—their particular style of thinking and feeling.

At the start of the interactive task, participants learned the screen names of their two communication partners: "Chris" and "Pat." As in Study 4, we intentionally kept the gender of the communication partners ambiguous. To ensure that participants would easily encode information about each of these partners, we also associated them with a specific color (green and blue). We counterbalanced names and colors within partner conditions. 9

Like the task described in Study 4, the task used in Study 5 involved both I am ... statements and word completions. These tasks were identical to those described in Study 4. However, unlike in Study 4, where participants completed just one type of task, all participants in Study 5 completed both tasks. Rather than have participants complete all 10 trials of one task followed by all 10 trials of the other, we intermixed the two tasks such that participants completed I am ... statements followed by word completions and vice versa.

After each *I am* ... or word completion trial, participants received information about how Chris and Pat responded to the trial. Specifically,

immediately after participants provided their response, they saw Chris and Pat's responses in a small window that appeared under each of their names. We rigged these responses such that one partner emerged as an I-sharer who was, nonetheless, objectively dissimilar to the participants; the other partner emerged as a non-I-sharer who was, nonetheless, objectively similar to the participants. The objectively dissimilar I-sharer had the same word completions as the participant 70% of the time but responded identically to the I am ... statements only 30% of the time. In contrast, the objectively similar non-I-sharer had the same word completions as the participant only 30% of the time but gave the same responses to the I am ... statements 70% of the time.

After participants completed this interactive portion of the study, they learned that their connection to their communication partners had been terminated and they completed the same dependent measures described in Study 4. This time, however, the response scale ranged from 1 (not at all) to 5 (very much). Also, participants completed two sets of liking items: one pertaining to the subjectively similar other ($\alpha = .72$) and one pertaining to the objectively similar other ($\alpha = .67$). After participants completed these items, the experimenter probed them for suspicion and thoroughly debriefed them.

Results

Did participants primed with existential isolation exhibit a preference for an objectively dissimilar I-sharer over an objectively similar non-I-sharer? To answer this question, we submitted participants' liking scores to a 3 (prime: existential isolation, boredom, neutral) \times 2 (target: objectively dissimilar I-sharer, objectively similar non-I-sharer) ANOVA with repeated measures on

⁹ We did not observe any statistically reliable main or interactive effects of this variable and so we do not discuss it further.

the last variable. Results revealed a statistically significant interaction between prime and target, F(2, 68) = 3.70, p = .03. No other effects reached conventional levels of significance (ps > .15).

We present the means for the interaction in Table 3. Consistent with past research on the allure of objective similarity, participants in the neutral condition liked the objectively similar non-I-sharer more than the objectively dissimilar I-sharer, F(1, 68) = 4.42, p = .04. Participants in the boredom condition showed no statistically significant preference for either partner, F < 1. Most important, a one-tailed t test confirmed that, in the existential isolation condition, participants preferred the objectively dissimilar I-sharer to the objectively similar non-I-sharer, t(1, 68) = 1.69, p < .05.

Discussion

We have proposed that I-sharing draws people to one another, in part, because it quells feelings of existential isolation. The results of Study 5 provide support for this claim. Although participants in our two control conditions showed either a preference for an objectively similar non-I-sharer over an objectively dissimilar I-sharer or showed no preference between the two, participants primed with feelings of existential isolation showed the reverse effect: These participants preferred the objectively dissimilar I-sharer to the objectively similar non-I-sharer.

Why did participants in the neutral condition show a preference for the objectively similar other when we observed no such preference in our previous studies? As suggested earlier, we suspect that methodological differences between Study 5 and our previous studies can at least partially account for these differential results. We suspect that objective similarity takes on more salience in everyday life than it does in a scenario-based methodology. Because Study 5 more closely approximates how people exchange information with one another in everyday life, we believe the objective similarity information also played a more prominent role than it did in our scenario studies. Of course, this explanation alone cannot explain why we did not observe a preference for objective similarity in Study 4. Note that we used nearly identical procedures in Studies 4 and 5 but found no effects of objective similarity in Study 4. Previous research provides some insight into why (Long & Pinel, 2005).

When Long and Pinel (2005) manipulated the order in which participants received I-sharing information and objective similarity information about another person, they found that participants' feelings of comfort with the person hinged solely on the extent to which they I-shared with him or her. In contrast, judgments about the likability of the person and how well participants would get along with him or her rested on both I-sharing and objective

Table 3
Liking for the Objectively Similar Non-I-Sharer and Objectively
Dissimilar I-Sharer as a Function of Prime Condition (Study 5)

	Existential isolation		Boredom		Neutral	
Prime	M	SD	M	SD	M	SD
Objectively dissimilar I-sharer Objectively similar non-I-sharer						

similarity information. These results point to the possibility that I-sharing effects emerge particularly strongly when people assume a more experiential mode of being (see Epstein, 1994) whereas objective similarity effects might emerge most strongly when people assume a more rational mode of being. By the same token, the moderating role of modes of being could explain why participants in the neutral condition of Study 5 showed a preference for the objectively similar other. Writing about their morning routine conceivably coaxed them into a rational mode of thought, one that highlighted the importance they place on objective similarity.

General Discussion

Across five studies we have seen how I-sharing influences people's liking for others. The results of Studies 1–3 suggest that I-sharing information moderates people's preference for objectively similar others. Specifically, participants preferred the objectively similar other to the objectively dissimilar other only when the objectively similar other was an I-sharer. Under conditions when the objectively dissimilar other I-shared with participants and the objectively similar other did not, we observed no such preference for the objectively similar other. In fact, in two of our first three studies, we actually observed a reverse preference, such that people preferred the objectively dissimilar I-sharer to the objectively similar non-I-sharer. These findings suggest that I-sharing can sometimes undo people's natural predilection toward objectively similar others.

The results of Studies 4 and 5 provide insight into why I-sharing acts as such a powerful interpersonal epoxy and highlight unique effects of I-sharing. Because I-sharers believe they have the same subjective experience, people who feel existentially isolated should like I-sharers significantly more than non-I-sharers. Consistent with this line of reasoning, we observed in Study 4 that people with a vulnerability to feelings of existential isolation—in this case, people high in emotional reliance (although we could have looked at other conceptually related individual differences, such as anxious attachment styles; see Fraley & Aron, 2004) demonstrated a significant preference for an I-sharer over a non-I-sharer. More to the point, in Study 5, when we used a direct situational manipulation of existential isolation, we observed that people in the existential isolation condition demonstrated a preference for an objectively dissimilar I-sharer over an objectively similar non-I-sharer; those in our two comparison conditions did not. It is important to note that the preference for the I-sharer emerged in the existential isolation condition even though he or she was objectively dissimilar to participants on multiple selfrelevant dimensions.

Although the results of our five studies provide general support for the notion that I-sharing plays a powerful role in interpersonal attraction, we acknowledge that our lack of a baseline control condition imakes it impossible to determine whether I-sharing increases attraction to others or whether the lack of I-sharing decreases attraction to others (for a similar ambiguity in the literature on objective similarity, see Rosenbaum, 1986). Given people's tendency to assume that most people share their attitudes (Ross et al., 1977), we suspect that people also generally expect to I-share with others. If so, under everyday conditions, people ought to show more of a reaction to those who do not I-share with them (because they violate people's expectancies) than to people who do I-share with them. We do suspect, however, that feelings of exis-

tential isolation can cause people to question their general assumption that most people share their subjective experiences. As such, people who feel existentially isolated should show an especial attraction for an I-sharer and an especial dislike for a non-I-sharer.

Methodological Issues

Although research on the self—including the self as it pertains to relationships—has proliferated over the past few decades, most all of this research concentrates on the Me. This emphasis on the Me partly stems from the difficulties associated with empirically studying the I. Given its fleeting, ephemeral nature, investigations of the I pose enormous methodological challenges. How do we capture under a social psychological microscrope a construct that shifts endlessly?

We made a first pass at operationalizing I-sharing—and thus the subjective self—in the studies reported here, but we continue to devise new and improved ways of operationalizing this construct. For instance, in one study we manipulate people's beliefs about the extent to which another individual has their same immediate response to an unfamiliar piece of music (Long & Pinel, 2005); in others, we ask people to think about celebrities in novel ways (e.g., if Oprah Winfrey were a mode of transportation, which mode would she be?) and manipulate the extent to which they and another ostensible participant provide identical, novel responses (Pinel & Long, 2005). In studies in progress, participants believe that they either do or do not see the same image in an inkblot.

This latter operationalization brings us to the question of manipulation checks, which we also continue to fine-tune. In one study, we manipulate I-sharing and we ask participants the extent to which they believe that they and their partner would see the same image in inkblots. Participants who I-share with their partner indicate that they would see the same image significantly more than do participants who do not I-share with their partner. In the study in which we manipulated shared immediate reactions to music, we asked people the extent to which they had the same reaction to the music they had heard (an I-sharing question) and the extent to which they had the same taste in music in general (an objective similarity question). People in the I-sharing condition endorsed the I-sharing question significantly more than the objective similarity question, thus lending further credence to our methodology.

In short, we continue to hone our operationalizations of I-sharing and we continue to develop convincing manipulation checks. We hope the work presented here will entice others to broach the study of the subjective self and to refine further ways of doing so.

I-Sharing and Related Constructs

We see elements of our theorizing on I-sharing in a wide range of earlier work, including (but not limited to) research and theorizing on the inclusion of other in self (Aron & Aron, 1997; Aron, Aron, & Smollan, 1992; Aron, Aron, Tudor, & Nelson, 1991), shared reality (Hardin & Conley, 2001; Hardin & Higgins, 1996; Levine, Higgins, & Choi, 2000), social contagion (Blackmore, 1999; Sperber, 1990), mimicry (Lakin & Chartrand, 2003; Lakin, Jefferis, Cheng, & Chartrand, 2003), empathic accuracy (Ickes, 1997), similarity (Allport, 1954; Berscheid, Dion, Walster, & Walster, 1971; Byrne, 1971; Byrne, Clore, & Worchel, 1966;

Byrne & Griffitt, 1969; Johnson, 1989; Nahemow & Lawton, 1975; Newcomb, 1961), and optimal distinctiveness (Brewer, 1991). Here we share a few observations on how I-sharing might fit in with this previous work.

Inclusion of Other in Self

According to Aron and colleagues (Aron & Aron, 1997; Aron et al., 1992, 1991), as closeness in a relationship develops, people begin to think of their self as merging with that of their close relationship partner(s). We suspect that this merging can happen with regard to both the Me and the I. Thus, as two people grow more and more intimate, they may not only start to define themselves similarly (e.g., "We are peas in a pod") but also may assume that they share the same subjective experiences (e.g., Murray et al., 2002).

Shared Reality

When two or more people share reality, they share the same working definition of a given situation (Hardin & Higgins, 1996). This could involve agreeing that the situation calls for a particular type of emotional experience (e.g., funerals call for sadness), agreeing upon each individual's role in a situation (e.g., one person instructs while the other attempts to learn), or agreeing upon how each individual will be perceived in that situation (e.g., you are the emotional one; I do not let myself feel).

Two or more people can share reality without I-sharing. For example, if two people's shared reality consists of believing one person to be emotional and the other to refrain from feeling any emotion, they should not believe themselves to be I-sharing while watching, for example, a heart-wrenching drama. Despite this difference between I-sharing and shared reality, we suspect that people's fundamental existential isolation makes it so that the most potent form of shared reality comes in the form of I-sharing.

Social Contagion and Mimicry

Research on social contagion and mimicry provides insight into one possible route toward the perception of I-sharing. Social contagion refers to the phenomenon whereby a motivational orientation (Wild & Enzle, 2002), a memory (Meade & Roediger, 2002; Roediger, Meade, & Bergman, 2001), a type of eating behavior (Crandall, 1988), among other things, spreads from one person to another, almost like an infection (Blackmore, 1999; Sperber, 1990). Similarly, mimicry refers to the tendency for interaction partners to take on one another's behavioral gestures, such as foot-tapping or face-touching (Chartrand & Bargh, 1999; Lakin & Chartrand, 2003; Lakin et al., 2003; for related research see Anderson, Keltner, & John, 2003). Both social contagion and mimicry refer to a process by which beliefs, behaviors, thoughts, gestures, et cetera, get transferred from one person to another (or to multiple others). The instigator of social contagion or mimicry thus clearly exerts some form of social influence, however subtle, on the followers. Although the perception of I-sharing can occur when two people independently react to a stimulus in an identical manner, we suspect that sometimes social contagion or mimicry accounts for this perception.

Empathic Accuracy

We noted earlier that I-sharing represents an inference about shared subjective experience. Nonetheless, we could develop a

technique for measuring the accuracy of I-sharing inferences by borrowing from the ingenious technique for measuring empathic accuracy (or the extent to which people accurately "read the minds" of others) developed by Ickes and colleagues (Ickes, Bissonnette, Garcia, & Stinson, 1990). In so doing, we would be able to determine whether, when two people believe they have the same subjective experience, they actually do.

Similarity

Historically, the term *similarity* has been used by social psychologists to refer to objective similarity, or similarity with respect to the Me. Two or more people are considered to be similar if they share features of their objective selves, such as when they come from the same hometown, have similar family histories, share the same ethnicity, enjoy the same novels, work in the same building, and have the same political leanings. Generally, people learn about the extent to which they are similar by exchanging information with one another about objective features of themselves (e.g., "So, what do you do for a living?").

The work presented here highlights an equally important form of similarity—similarity with respect to the subjective self, or I-sharing. Moreover, the concept of I-sharing could conceivably shed new light on some previously hard-to-accommodate findings in the literature. For example, why, if similarity leads to attraction, do people sometimes find themselves enamored with someone who represents their complete opposite? We believe that I-sharing might explain those times when two people who seem radically different with respect to objective features nonetheless feel intimately connected to one another. Indeed, the results of Studies 1, 3, and 5 suggest that I-sharing can sometimes enable people to overlook objective differences between themselves and others. Although there may be a limit to how much objective dissimilarity I-sharing can make people overlook (e.g., could it make Israelis and Palestinians overlook their differences?), those interested in improving interpersonal and intergroup relationships might want to consider creating situations that foster I-sharing experiences between people with objective differences.

Optimal Distinctiveness

We suggest that people seek out I-sharers particularly when they feel existentially isolated. This analysis calls to mind research on optimal distinctiveness theory, which suggests that we strive to maintain an optimal balance between our needs for assimilation and distinctiveness (Brewer, 1991). As such, when something happens to heighten our feelings of similarity with (or distinctiveness from) others, we strive to tip the balance in the opposite direction. For example, just as heightened feelings of distinctiveness foster a greater desire for similarity, so too should heightened feelings of existential isolation foster a greater desire for I-sharing. Unlike heightened feelings of similarity, however, which foster a move toward distinctiveness, we suspect that heightened feelings of I-sharing seem likely to foster a desire only for more I-sharing. When we befriend someone with whom we I-share, we often expose them to all those stimuli that elicit strong reactions from us: the books we love, the places that take on special meaning for us, the people who irritate us. Judging by the intense feelings of disappointment that result when the presumed I-sharer does not "get" our reactions to these stimuli, it seems likely that we hope for more I-sharing experiences under such circumstances, not fewer.

Coda

In his recent book titled *Sync*, Strogatz (2003) detailed the abundant examples of natural phenomena that gravitate toward synchronicity. More relevant to the current analysis, he also notes the wonderment fostered by displays of synchronicity: "... persistent sync can be spectacular, as in the kickline of the Rockettes or the matched movements of synchronized swimmers" (p. 2). Later, Strogatz goes on to remark on how much it "delights us to dance and sing together, stomp our feet, do the 'wave' at a football game" (p. 271). We agree with Strogatz that humans share a fascination with synchronicity, and we would add that their fundamental existential isolation may have a lot to do with it. When two or more people behave in perfect harmony, they manifest a level of connectedness that all too often seems elusive.

References

- Allport, G. W. (1954). The nature of prejudice. Reading, MA: Addison Wesley.
- Anderson, C., Keltner, D., & John, O. P. (2003). Emotional convergence between people over time. *Journal of Personality and Social Psychol*ogy, 84, 1054–1068.
- Aron, A., & Aron, E. N. (1997). Self-expansion motivation and including other in the self. In S. Duck (Ed.), *Handbook of personal relationships: Theory, research, and interventions* (2nd ed., pp. 251–270). New York: Wiley.
- Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of Other in the Self Scale and the structure of interpersonal closeness. *Journal of Personality* and Social Psychology, 63, 596–612.
- Aron, A., Aron, E. N., Tudor, M., & Nelson, G. (1991). Close relationships as including other in the self. *Journal of Personality and Social Psychology*, 60, 241–253.
- Asch, S. E. (1946). Forming impressions of personality. *Journal of Abnormal and Social Psychology*, 41, 258–290.
- Baumeister, R., & Leary, M. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497–529.
- Berscheid, E., Dion, K., Walster, E., & Walster, G. W. (1971). Physical attractiveness and dating choice: A test of the matching hypothesis. *Journal of Experimental Social Psychology*, 7, 173–189.
- Berscheid, E., & Reis, H. T. (1998). Attraction and close relationships. In D. T. Gilbert, S. T. Fiske, & G. Lindsey (Eds.), *Handbook of social psychology: Vol.* 2 (4th ed., pp. 193–281). New York: McGraw-Hill.
- Blackmore, S. (1999). The meme machine. Oxford, England: Oxford University Press.
- Bowlby, J. (1969). Attachment and loss. New York: Basic Books.
- Brewer, M. B. (1979). In-group bias in the minimal intergroup situation: A cognitive-motivational analysis. *Psychological Bulletin*, 86, 307–324.
- Brewer, M. B. (1991). The social self: On being the same and different at the same time. *Personality and Social Psychology Bulletin*, 17, 475– 482.
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84, 822–848.
- Byrne, D. (1971). *The attraction paradigm*. New York and London: Academic Press.
- Byrne, D., Clore, G. L., & Smeaton, G. (1986). The attraction hypothesis: Do similar attitudes affect anything? *Journal of Personality and Social Psychology*, *51*, 1167–1170.
- Byrne, D., Clore, G. L., & Worchel, P. (1966). Effect of economic

- similarity-dissimilarity on interpersonal attraction. *Journal of Personality and Social Psychology*, 4, 220–224.
- Byrne, D., & Griffitt, W. (1969). Similarity and awareness of similarity of personality characteristics as determinants of attraction. *Journal of Experimental Research in Personality*, *3*, 179–186.
- Campbell, J. D. (1990). Self-esteem and clarity of the self-concept. *Journal of Personality and Social Psychology*, 59, 538–549.
- Chartrand, T. L., & Bargh, J. A. (1999). The chameleon effect: The perception–behavior link and social interaction. *Journal of Personality* and Social Psychology, 76, 893–910.
- Crandall, C. S. (1988). Social contagion of binge eating. *Journal of Personality and Social Psychology*, 55, 588–598.
- Csikszentmihalyi, M. (1999). If we are so rich, why aren't we happy? American Psychologist, 54, 821–827.
- Csikszentmihalyi, M., & LeFevre, J. (1989). Optimal experience in work and leisure. *Journal of Personality and Social Psychology*, 56, 815–822.
- Epstein, S. (1994). Integration of the cognitive and the psychodynamic unconscious. *American Psychologist*, 49, 709–724.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7, 117–140.
- Florian, V., Mikulincer, M., & Hirschberger, G. (2002). The anxiety-buffering function of close relationships: Evidence that relationship commitment acts as a terror management mechanism. *Journal of Personality and Social Psychology*, 82, 527–542.
- Fraley, B. A., & Aron, A. (2004). The effect of a shared humorous experience on closeness in initial encounters. *Personal Relationships*, 11, 61–78.
- Greenberg, J., Pyszczynski, T., & Solomon, S. (1986). The causes and consequences of a need for self-esteem: A terror management theory. In R. Baumeister (Ed.), *Public self and private self* (pp. 189–212). New York: Springer.
- Hardin, C. D., & Conley, T. D. (2001). A relational approach to cognition:
 Shared experience and relationship affirmation in social cognition. In
 G. B. Moskowitz (Ed.) Cognitive social psychology: The Princeton symposium on the legacy and future of social cognition (pp. 3–17).
 Mahwah, NJ: Erlbaum.
- Hardin, C. D., & Higgins, E. T. (1996). Shared reality: How social verification makes the subjective objective. In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition*, Vol. 3: The interpersonal context (pp. 28–84). New York: Guilford Press.
- Heider, F. (1958). *The psychology of interpersonal relations*. New York: Wiley.
- Hirschfeld, R. M. A., Klerman, G. L., Gough, H. G., Barrett, J., Korchin, S. J., & Chodoff, P. (1977). A measure of interpersonal dependency. *Journal of Personality Assessment*, 41, 610–618.
- Hodges, S. D., Klein, K. J. K., Veach, D., & Villanueva, R. (2004). Giving birth to empathy: The effects of similar experience on empathic accuracy, empathic concern, and perceived empathy. Unpublished manuscript.
- Ickes, W., Bissonnette, V., Garcia, S., & Stinson, L. L. (1990). Implementing and using the dyadic interaction paradigm. In C. Hendrick & M. S. Clark (Eds.), Review of personality and social psychology: Vol. 11. Research methods in personality and social psychology (pp. 16–44). Newbury Park, CA: Sage.
- Ickes, W. J. (Ed.) (1997). Empathic accuracy. New York: Guilford Press. James, W. (1890/1918). Principles of psychology. Toronto, Ontario, Canada: General Publishing Company.
- Johnson, M. A. (1989). Variables associated with friendship in an adult population. The Journal of Social Psychology, 129, 379–390.
- Lakin, J. L., & Chartrand, T. L. (2003). Using nonconscious behavioral mimicry to create affiliation and rapport. *Psychological Science*, 14, 334–339.
- Lakin, J. L., Jefferis, V. E., Cheng, C. M., & Chartrand, T. L. (2003). The

- chameleon effect as social glue: Evidence for the evolutionary significance of nonconscious mimcry. *Journal of Nonverbal Behavior*, 27, 145–162.
- Levine, J. M., Higgins, E. T., & Choi, H. (2000). Development of strategic norms in groups. Organizational Behavior and Human Decision Processes, 82, 88–101.
- Long, A. E., & Pinel, E. C. (2005). Fleeting yet formative: How subjective similarity shapes interpersonal attraction. Manuscript submitted for publication.
- Meade, M. L., & Roediger, H. L., III. (2002). Explorations in the social contagion of memory. *Memory & Cognition*, 30, 995–1009.
- Murray, S. L., Holmes, J. G., Bellavia, G., Griffin, D. W., & Dolderman, D. (2002). Kindred spirits? The benefits of egocentrism in close relationships. *Journal of Personality and Social Psychology*, 82, 563–581.
- Nahemow, L., & Lawton, M. P. (1975). Similarity and propinquity in friendship formation. *Journal of Personality and Social Psychology*, 32, 205–213.
- Newcomb, T. (1961). *The acquaintance process*. New York: Holt, Rinehart, & Winston.
- Pinel, E., & Long, A. (2005). When I's meet: I-sharing as both a cause and cure of ingroup favoritism. Manuscript submitted for publication.
- Pinel, E., Long, A., Landau, M., & Pyszczynski, T. (2004). I-sharing and the problem of existential isolation. In J. Greenberg, S. Koole, & T. Pyszczynski (Eds.), *Handbook of experimental existential psychology* (pp. 352–368). New York: Guilford Press.
- Roediger, H. L., III, Meade, M. L., & Bergman, E. T. (2001). Social contagion of memory. Psychonomic Bulletin & Review, 8, 365–371.
- Rosenbaum, M. E. (1986). The repulsion hypothesis: On the nondevelopment of relationships. *Journal of Personality and Social Psychology*, 51, 1156–1166.
- Ross, L., Greene, D., & House, P. (1977). The false consensus effect: An egocentric bias in social perception and attribution processes. *Journal of Experimental Social Psychology*, 13, 279–301.
- Solomon, S., Greenberg, J., & Pyszczynski, T. (1991). Terror management theory of self-esteem. In C. R. Snyder & D. R. Forsyth (Eds.), *Handbook* of social and clinical psychology: The health perspective (Vol. 162, pp. 21–40). New York: Pergamon Press.
- Sperber, D. (1990). The epidemiology of beliefs. In C. Fraser & G. Gaskell (Eds.), *The social psychological study of widespread beliefs* (pp. 25–44). Oxford, England: Clarendon Press.
- Strogatz, S. H. (2003). Sync: The emerging science of spontaneous order. New York: Hyperion.
- Swann, W. B., Jr. (1996). Self-traps: The elusive quest for self-esteem. New York: Freeman.
- Tajfel, H., & Turner, J. C. (1986). The social identity of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *Psychology of inter-group relations* (2nd ed., pp. 7–24). Chicago: Nelson-Hall.
- Trope, Y. (1983). Self-assessment in achievement behavior. In J. Suls & A. Greenwald (Eds.), *Psychological perspectives on the self* (Vol. 2, pp. 93–121). Hillsdale, NJ: Erlbaum.
- Tyler, A. (2001). Back when we were grownups. New York: Knopf.
- Wild, T. C., & Enzle, M. E. (2002). Social contagion of motivational orientations. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 141–157). New York: University of Rochester Press.
- Yalom, I. D. (1980). Existential psychotherapy. New York: Basic Books.
 Yzerbyt, V. Y., Schadron, G., Leyens, J. P., & Rocher, S. (1994). Social judgeability: The impact of meta-informational cues on the use of stereotypes. Journal of Personality and Social Psychology, 66, 48–55.

Received July 24, 2004
Revision received May 13, 2005
Accepted June 10, 2005