Value Revelations: Disclosure Is in the Eye of the Beholder

Emily Pronin, John J. Fleming, and Mary Steffel Princeton University

In interpersonal interactions ranging from job interviews to romantic dates, it is common for people to tell each other about what they care about and value. Six experiments explored the general hypothesis that people view their disclosures about what they value as more revealing of themselves than do others. This effect is demonstrated across a variety of contexts, ranging from the brief and anonymous to the more in-depth and social. A source of it is explored in actors' feeling that their most important values are especially important to them. Studies suggest that this feeling involves actors' sense of the intensity with which they hold their values, as opposed to their beliefs about the uniqueness of those values. Studies also show that actors' tendency to view value disclosures as more revealing than do observers is somewhat specific to value disclosures—that is, actors do not view their relatively off-the-cuff responses (Study 4) or their disclosures of their nonvalues (Study 6) as more revealing. Implications of this research for self-other differences and for interpersonal intimacy are discussed.

Keywords: self-disclosure, values, intimacy, actor-observer, asymmetric insight

[M]y purposes, those decent and worthwhile goals? . . . Raising intelligent, loving, sturdy children! Protecting some good woman! Dignity! Health! Love! Industry! Intelligence! Trust! Decency! High Spirits! Compassion!

-Philip Roth, Portnoy's Complaint

The desire to establish relationships with other people and to deepen already existing ones often leads people to open up about themselves. Indeed, actors' efforts to reveal information about themselves has been shown to play a key role in establishing interpersonal intimacy (e.g., Altman & Taylor, 1973; Derlega, Metts, Petronio, & Margulis, 1993; Jourard, 1971; Laurenceau, Barrett, & Pietromonaco, 1998). Of course, such efforts are likely to be more effective when the information being disclosed is viewed as revealing not only by the person providing it but also by the person receiving it. Unfortunately, actors and observers do not always agree about what information is revealing about a person (e.g., Andersen & Ross, 1984; Pronin, Kruger, Savitsky, & Ross, 2001). In the present research, we sought to investigate one such case of an actor–observer difference in the perceived amount revealed by self-disclosures.

One common type of self-disclosure involves opening up to others about what it is that one cares about and values in one's life. The things that people value are fundamental to their sense of self. Those things provide a source of self-affirmation (Sherman &

Emily Pronin, John J. Fleming, and Mary Steffel, Department of Psychology, Princeton University.

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Correspondence concerning this article should be addressed to Emily Pronin, Department of Psychology, Green Hall, Princeton University, Princeton, New Jersey, 08540. E-mail: epronin@princeton.edu

Cohen, 2006; Steele & Liu, 1983) and constitute a central part of individuals' personal identities (Allport, Vernon, & Lindzey, 1960; Markus, 1983). As a consequence, people are likely to see their true selves as revealed through their values. But, as is illustrated by Roth's quotation, the level of passion with which people hold their values is often matched only by the level of banality and commonness of those values. Thus, others may view one's revelations about what is important to oneself as relatively unrevealing. This article explores the hypothesis that there is a self–other asymmetry in perceptions of how much is revealed by people's disclosures about what they value, that is, their *value revelations*.

When individuals tell others about how much they value a certain thing, such as family, they may feel that they have truly opened up—while those others may feel that little has been conveyed. The importance of such an asymmetry for the establishment of interpersonal intimacy is clear. It is likely to leave those who reveal feeling disappointed by others' failure to acknowledge the meaningfulness of their revelations, and it is likely to leave those on the receiving end feeling disappointed by others' failure to open up about anything meaningful. In the end, both parties are likely to feel disconnected and distant, even while both attempt to establish a connection.

Self-Other Asymmetries in Perceptions of What Is Revealing

Although no previous research has examined self-other differences in perceptions of people's value revelations, some research is relevant. Research concerning the differing processes involved in self-perception and social perception sheds some light on reasons why people might be inclined to view their own value disclosures as meaningfully revealing, even though they might be less likely to see others' value disclosures in that way. This research, to which we now turn, suggests that actors and observers are likely to take different perspectives when assessing how revealing something is of a person.

The Actor's Perspective

When assessing the meaningfulness of their value revelations, actors are likely to have a good deal of information available to them that observers lack. In particular, actors have relatively direct access to their feelings about how much they value different things in their lives, such as family, friends, or career. Compared to observers, actors are likely to have more readily accessible information about the meanings, desires, goals, and emotions that they attach to the things that they most value. Even when observers have access to the nature of actors' thoughts and feelings about their values, as outsiders, observers are unlikely to have as full an appreciation for the depth of actors' feelings about those values. Indeed, because of this difference, actors tend to assume that they feel things more deeply and richly than others do (Johnson, 1987; Johnson, Struthers, & Bradlee, 1988; McFarland & Miller, 1990). It is perhaps for this reason that actors tend to view information about their internal responses, such as feelings and goals, as more diagnostic of who they are than do observers (Andersen & Ross, 1984; Pronin et al., 2001). Because observers are unaware of the richness of these internal experiences, they may be less inclined to view them as meaningful.

The richness of actors' access to internal information should lead them to diverge from observers in perceptions of how important their most important values are to them. Actors are likely to view the things that they value as more important to them than are observers because actors have access to the powerful feelings and meanings that they associate with those values. And, it is that belief in the special importance of those values, we predict, that will lead actors to view what is important to them as revealing of who they are.

This account of actors' perspective on their value revelations differs from that of a false uniqueness account, whereby actors might view their values as more revealing than observers if they view those values as unique or unusual. Researchers have questioned the prevalence and generality of the false uniqueness effect (e.g., Biernat, Manis, & Kobrynowicz, 1997; McFarland & Miller, 1990; Suls & Wan, 1987), and the account presented here does not rely on actors' viewing their values as unique or unusual. Instead, this account suggests that actors are likely to view their values as revealing because of the depth and intensity with which they hold their values—values they may readily acknowledge that others hold as well. This hypothesis is also consistent with accumulating research suggesting that people's self-assessments often do not rest on interpersonal comparisons but rather are more intrapersonal in nature (e.g., Epley & Dunning, 2000; Gilovich, Kruger, & Medvec, 2002; Kruger, 1999).

The Differing Perspectives of Actors Versus Observers

When assessing how much is revealed by actors' value disclosures, observers clearly lack information about the depth of emotion and extent of meaning that actors associate with their values. As a consequence, observers may be more likely to judge actors from an outside view that considers the actor in the context of lay theories about human behavior, or of broad observations about population base-rates, rather than from an inside view that relies on a consideration of the actor's ongoing cognitive and affective experience (Kahneman & Lovallo, 1993; also Epley & Dunning, 2000; Kahneman & Tversky, 1982).

Actors tend to give more consideration to internal information, such as thoughts and feelings, when evaluating themselves relative to others—even when that consideration occurs at the expense of weighing relevant external information, such as observable behavior or population base-rates (Pronin, 2008). In their classic theorizing about actor-observer differences, Jones and Nisbett (1972) noted people's heightened access to internal information when considering themselves. More recent work has demonstrated that people not only have more access to their own thoughts, feelings, desires, and intentions but also place more weight on that sort of information when making self-judgments (Kruger & Gilovich, 2004; Pronin, Berger, & Molouki, 2007; Pronin & Kugler, 2007). For example, people view their internal responses as more diagnostic than those of others when it comes to assessing their own (versus others') susceptibility to conformity. Indeed, this asymmetry occurs even when observers have access to actors' introspections, suggesting that those observers simply give that information less weight. This asymmetry in weighting of internal information has been referred to as an *introspection illusion* because it involves people placing heavy emphasis on information derived from their own (but not others') introspections at the expense of their giving weight to other relevant information about themselves (Pronin et al., 2007; Pronin & Kugler, 2007).

The hypothesis proposed in this article is consistent with these findings, in that it suggests that people may view their value disclosures as more revealing than those of others because of the weight that they place on their own strong, internal reactions to those values (e.g., on the emotions, goals, and desires they associate with those values). Others are likely to place less weight on the internal feelings and meanings that people ascribe to their values, even when that internal information is disclosed to them. Observers may make up for that lack of emphasis by considering the uniqueness of actors' values. This suggests that to the extent that actors' value disclosures involve the revelation of commonplace values, observers are likely to be less impressed than are actors by the amount revealed in those disclosures.

It is worth noting that this prediction about observers' reduced weighting of (and attention to) actors' internal states is related to so-called illusions of transparency (Gilovich, Savitsky, & Medvec, 1998; Vorauer & Ross, 1999). Those illusions involve actors' false assumption that they have conveyed something to others that in reality is only internally experienced (e.g., a private emotion). The effect we predict here is not the same, though it shares some characteristics. First, illusions of transparency involve actors' beliefs about information conveyed about their ongoing (and variable) internal states, such as their embarrassment at a particular moment or their motives in a particular setting, rather than about their stable traits or values. Second, we predict that people will view their important values as more revealing of who they are than will others (rather than only viewing their disclosures of those values as more revealing). Our prediction, therefore, rests not on actors' perceptions of how much they have conveyed to others in their disclosures but rather on actors' perceptions of how much meaning is inherently held in their values themselves.

The Logic of Actors Versus Observers

We have suggested that compared to observers, actors are likely to be deeply aware of the intensity with which they care about the

things they value and of the profound meaning that they attach to those things. As such, they may fail to recognize that from a diagnostic standpoint the disclosure of those things reveals little (i.e., it does not help another person to better understand or to better make predictions about them).

Yet, we hasten to note that actors' hypothesized belief that value disclosures are revealing may also have a certain logic to it. Consider the following example. Imagine that spending time with friends and having a fulfilling career are important to Rob, as are consuming protein-rich breakfasts and seeing La Boheme when it is staged at his city's opera house. Although the former two qualities are fairly poor at differentiating him from his peers, the latter two are pretty good. But the former two are, in a sense, more revealing. They capture more of what is central to Rob's identity. In his mind, he would still basically be Rob even if he stopped caring about whether he ate Wheaties cereal and peanut butter for breakfast, but he would be a very different person if he stopped caring about his friends or career. When engaging in selfperception, we suggest, people may be less concerned with whether their values differentiate them from other people in determining how revealing those values are and more concerned with whether those values feel truly and deeply important.

Value Revelations, Dispositionist Attributions, and Illusions of Asymmetric Insight

The actor-observer asymmetry that we have hypothesized may appear to contradict the classic correspondence bias, whereby observers believe that they have learned something about an actor's internal disposition on the basis of that actor's behavior, even when that behavior would be shown by almost anyone in the actor's situation (Gilbert & Malone, 1995; Jones & Harris, 1967; Jones & Nisbett, 1972; Ross, 1977). We seem to be suggesting almost the reverse: that is, actors will make inferences about their true selves on the basis of qualities shared by almost everyone, whereas observers will resist such inferences. In this respect, the phenomenon we are predicting is an unusual one. It is also a theoretically important one in that its existence could help to clarify the underlying processes involved in other self-other asymmetries, such as the tendency for people to make dispositionist attributions about others more than about the self. That tendency involves observers' lack of access to actors' internal states (e.g., actors' opinions about a controversial issue) and inclination to infer those internal states from actors' behavior. Observers in such cases often fail to recognize that actors' behavior merely reflects the situation (e.g., an acute pressure to express a particular opinion) and is therefore unrevealing. Actors, by contrast, internally feel the demands that the situation has placed on them and are therefore more likely to resist dispositionist attributions. Thus, the correspondence bias and the proposed value revelation effect could involve the same underlying mechanism despite their clear differences.

Another effect that at least superficially differs from the one we predict involves people's tendency, in the course of social interactions, to assume that they have learned more about others than others have learned about them (Pronin et al., 2001). This illusion of asymmetric insight has been traced to people's tendency to view their own spontaneous or off-the-cuff responses to others' questions as relatively unrevealing even though they view others'

similar responses as meaningful. As a result, people question what others could learn about them from such interactions at the same time that they believe they can learn something about those others. This illusion seems to involve the same source as the effect we predict here, that is, actors' awareness of the meaning, thoughts, and feelings that they associate with their conversational disclosures. To the extent that they have little depth of feeling associated with those disclosures (as with off-the-cuff responses), they are likely to view those disclosures as unrevealing; to the extent that they have intense feelings associated with those disclosures (as with testaments to deeply held values), they are likely to view those disclosures as highly revealing. Inherent in our theorizing in this article, then, is that not all revelations will be perceived as more revealing by actors than observers but rather that an interaction effect is likely, whereby people will view disclosures of their important values as more self-revealing than will others, but whereby they will view disclosures of less intensely held information (such as values they do not hold, or off-the-cuff responses to others' questions) as perhaps less revealing of self than others.

The Present Research

These experiments explore the general hypothesis that people view information about what they value as more revealing of themselves than others perceive it to be. In Study 1, we tested this hypothesis in the context of speakers' brief spoken testaments of what is important to them. In Studies 2 and 3, we sought evidence for this hypothesis in the context of richer and more lengthy value disclosures (both written and spoken) while also exploring whether the self-other asymmetry is mediated by people's feelings about the deep and special importance to them of their values. In Studies 4-6, we compared this hypothesized mechanism with an alternative one (involving the possibility that people view their own values as more unique and therefore more self-revealing) while also examining the generality and boundaries of the effect. In Study 4, we tested whether the effect generalizes to contexts of mutual disclosure between conversational partners and whether it is limited to disclosures of values as opposed to responses involving more unmonitored or off-the-cuff comments. In Study 5, we manipulated perceived value uniqueness to more clearly rule out that potential mechanism, and in Study 6, we explored whether the value revelation effect extends to perceptions of the values people do not possess (as opposed to those they do).

Study 1: What Is Important to Me (Versus What Comes to Mind)

In this experiment, we sought initial evidence for our basic hypothesis that compared to observers, actors would be more likely to see information they provided about what was important to them as revealing. Actors (speakers) provided an audio recording of what was important to them, and they rated how self-revealing it was. Observers (listeners) listened to a yoked actor's recording and provided similar ratings about that actor. To rule out the possibility that the predicted self-other asymmetry merely involved a tendency for actors to view any information that they provided as more self-revealing than observers, we also asked actors and observers to rate recordings of actors' ongoing (and unrestricted as to content) thoughts.

Method

Participants

A total of 72 undergraduates at Princeton University participated in exchange for candy.

Procedure

Speaker condition. Each speaker participant was asked to provide two recordings. For the importance recording, each participant was first asked to "take a moment to think about what is important to you." The participant was then provided with a piece of scrap paper and instructed to "jot down approximately five specific things that are important to you." The participant was then asked to provide a clear tape recording of this list. After doing so, the participant was presented with our dependent measures. For the stream of consciousness (i.e., ongoing thoughts) recording, participants were not restricted in terms of the their thought content but rather were asked to "say aloud whatever is going through your mind—this might include images, ideas, memories, feelings, fantasies, plans, sensations, observations, daydreams, objects that catch your attention, efforts to solve a problem." After providing a 30 s recording, they again completed our dependent measures. The order in which participants provided their two recordings (and in which the listeners thus heard those recordings) was counterbalanced and did not affect the results.

Listener condition. Listener participants were informed that they would be hearing a pair of recordings provided by another student. Each listener participant was linked to a different speaker participant, such that each speaker was heard by exactly one listener and each listener heard exactly one speaker (i.e., the one who participated just before them in the experiment). Before playing the importance recording, the experimenter informed listeners that the speaker would be listing approximately five things that were important to him or her. Before playing the stream of consciousness recording, the experimenter told listeners that the speaker would be providing a 30 s recording of his or her stream of consciousness (and the experimenter recounted the description of stream of consciousness that had been provided to speakers). After each recording, listeners completed the set of dependent measures.

Dependent Measures

The dependent measures involved perceptions of how much the speakers' recordings revealed about them (Cronbach's $\alpha=.85$). Thus, for each of the two recordings, each speaker was asked, "How much do you think this recording reveals about who you really are and what you are really like?" $(1=nothing, 7=a\ lot)$; "If another Princeton student listened to this recording, how well would they be able to understand who you are and what you are like?" $(1=not\ at\ all\ well, 7=extremely\ well)$; and, "How accurate of a picture do you think this recording provides of your true self?" $(1=not\ at\ all\ accurate, 7=extremely\ accurate)$. Each listener was asked the same questions, but with respect to a yoked speaker (e.g., "How much do you think this recording reveals about who this person really is and what this person is really like?").

Results and Discussion

Speakers and listeners differed in their perceptions of how revealing they perceived the importance recordings versus the stream of consciousness recordings to be. This interaction was significant according to a repeated measures analysis of variance with dyad as the unit of analysis, F(1, 35) = 6.48, p = .02. Consistent with our primary hypothesis, speakers considered their importance recordings to be more revealing (M = 4.19) than listeners considered them to be (M = 3.57), F(1, 35) = 4.82, p =.03. This asymmetry did not extend to how stream of consciousness recordings were viewed. Speakers did not view those as more revealing than did listeners (M = 3.21 vs. M = 3.57, respectively), F(1, 35) = 1.65, p = .21. Additionally, speakers saw their importance recordings as particularly revealing relative to their stream of consciousness, F(1, 35) = 18.97, p < .001. Listeners, by contrast, did not view actors' importance recordings as more revealing than those actors' stream of consciousness, F = 0, ns.

This study provides initial support for our hypothesis of a self-other asymmetry in perceptions of how much is revealed by value disclosures. Actors viewed their statements of values as more revealing than did observers. This effect did not extend to actors' versus observers' perceptions of actors' ongoing thoughts. In that case, the effect was in the opposite direction (but did not reverse significantly). Actors in that condition were instructed to voice whatever came to mind, which perhaps led them to voice value-related thoughts (e.g., about valued goals or family members) but also more fleeting and less identity-related thoughts (e.g., about the weather or the experiment). In Studies 4 and 6, we exerted more experimental control over participants' disclosures in the nonvalue-revelation conditions and tested for reversals of the effect.

One limitation of this study is worth noting. The revelations that actors provided were brief. Actors simply enumerated those things that were important to them. Our next study addressed this concern by having actors provide more detailed descriptions of an important value. We also initiated an exploration of a possible source of the observed self—other asymmetry. That source involved a tendency for actors to view the things that they value as revealing of them by virtue of the strength or intensity with which they hold those values.

Study 2: The Importance of Family

In this experiment, we sought further evidence for our hypothesis of an actor–observer asymmetry in perceptions of the amount revealed by value disclosures. We also sought evidence that this asymmetry was mediated by actors' tendency to feel that their important values were especially important to them (a feeling not expected to be shared by observers). In this study, actors wrote essays about the importance of family to them, and observers read those essays.

Method

Participants

Sixty Princeton undergraduates participated for candy or monetary compensation.

Procedure

Writer condition. Each writer participant was asked to write about "how and why your family is important to you." The participant was provided with a blank page titled "Why My Family Is Important to Me." After writing the essay, participants completed our dependent measures.

Reader condition. Each reader participant was provided with an essay written by a yoked writer who they were informed was another student who had been in the study. Reader participants were asked to read the essay and to then complete our dependent measures.

Dependent Measures

Three questions dealt with how much participants thought was revealed by the importance of family to the writer and by the writer's essay about the importance of family. Writers were asked, "In order for another Princeton student to truly know you, how important would it be for that student to understand the importance of family to you?" $(1 = not \ at \ all \ important, 7 = extremely$ important); similarly, readers were asked, "In order to truly know this Princeton student, how important do you think it is to understand the importance of family to this student?" Two additional questions referred specifically to the writers' essays. Writers were asked, "If another Princeton student were to read this essay, how well would they be able to understand who you are and what you are like?" $(1 = not \ at \ all \ well, 7 = extremely \ well)$ and "How much do you think this essay reveals about who you really are and what you are really like?" (1 = nothing, 7 = a lot). Readers also were asked these questions, but with respect to their yoked writer. As an assessment of perceptions of the intensity with which writers valued family, participants were asked, "How important is family to you [this person] relative to the average person?" (1 = muchless important, 4 = about the same, 7 = much more important). Finally, participants were asked: "How clearly does this essay convey how important family is to you [this person]?" (1 = not at)all clearly, 7 = extremely clearly).

Results and Discussion

Our first hypothesis was that actors would view the importance of family to them as more revealing of who they were than would observers. Indeed, participants were more likely to believe that one had to know about the importance of family to them in order to know them (M = 5.00) than were their peers to hold this belief about them (M = 4.20). This difference was significant based on repeated measures analysis of variance with dyad as the unit of analysis, F(1, 29) = 7.44, p = .01. Writers also perceived their testaments about the importance of family to be more revealing of their true selves than readers perceived those testaments to be (M = 4.30 vs. M = 3.63), F(1, 29) = 4.00, p = .05, and writersperceived their testaments as more important for understanding them than did readers (M = 3.70 vs. M = 2.87), F(1, 29) = 6.85,p = .01. It is important to note this effect was not due to any writer-reader asymmetry in perceptions of how clear writers' essays were at conveying the importance of family to them. Writers and readers saw the essays as equally clear in that respect (M =4.47 vs. M = 4.43), F = .01, ns; writers simply saw them as more revealing.

We next examined participants' reports of the importance of family to themselves (or a yoked writer) relative to the average person. Consistent with our analysis of underlying process, writers reported that family was more important to them than to the average person (M = 5.27, where 4 = same as average) more than readers reported that to be the case (M = 4.66), F(1, 29) = 4.21, p = .05. The more participants felt that family was especially important to the writer, the more they felt was revealed by the writer's disclosure about that value (on an index of our three items dealing with perceived revelation); this correlation emerged for writers, r(28) = .47, p = .008, and readers, r(28) = .52, p = .003.

We conducted mediational analysis involving this potential mediator, following the procedure described by Judd, Kenny, and McClelland (2001) for use with repeated measures designs. Having shown that participants' role as actor versus observer (our independent variable) affected our proposed mediator and our dependent measure, we next ran a regression predicting the difference in writers' versus readers' responses, on our dependent measure, from (a) the difference in their responses on our mediating measure and (b) the sum of their responses on that measure. The model revealed that differences in writers' versus readers' perceptions of the degree of importance of family to them indeed mediated the value revelation effect ($\beta = .32$, SE = .14), t(27) =2.20, p = .04. There was no evidence that those differences moderated the effect, as the sum of writers' and readers' perceptions was not a significant predictor in the model (t < 1, ns). We next centered the sum variable in the regression model and tested the significance of the intercept in this model, to determine whether the observed mediation was partial versus full (see Judd et al., 2001). The intercept was significant, t(27) = 2.22, p = .04, indicating that there was still variance unaccounted for and that the observed mediation was therefore partial. Finally, it may be worth noting that this method of mediational analysis, although welltailored to repeated measures designs, does not lend itself to informative tests of reverse mediation (because of the statistical equivalence of regressing differences in the dependent measure on differences in the mediating measure and vice versa); accordingly, such tests are not reported.

In this experiment, we found further support for our hypothesis of a self-other asymmetry in perceptions of value revelations. Even when observers were exposed to a detailed description of the importance to a yoked actor of an important value (i.e., family), they saw the disclosure of that information as less revealing than that actor perceived it to be. This study also offered some initial evidence regarding underlying process. Actors saw something that was commonly important to people as more important to them and, consistent with that perception, they thought that telling someone about its importance to them revealed a fair amount about who they were. Observers had a different view. They were less likely to consider family to be especially important to a yoked actor relative to the average person, and they were less inclined to believe that the importance of family to that actor revealed something meaningful about that actor.

According to our analysis of underlying process, the actorobserver difference we have identified derives from actors' perceptions of the intensity with which they hold their important values. Another possibility, though, is that the difference derives from actors' perceptions of the uniqueness of their important values. The present study does not address this debate directly. Participants were asked about the importance of family to the actor "relative to the average person," thus their responses could have reflected their perceptions of either (a) how intensely they (or a yoked actor) valued family or (b) how common versus uncommon it is to value family. In our next study, we thus sought to examine our proposed mediator by asking actors not about the importance of a value to them relative to other people (which could also probe feelings of uniqueness) but about its importance to them relative to the importance of other values to them.

Study 3: One's Important Values (Versus One's Other Values)

Actor participants (speakers) provided a recording in which they discussed three values, one of which they overtly classified as important to them. They also rated how important this value was to them relative to the other values and how much it revealed about them. Informed observer participants (listeners) listened to a peer's recording and provided similar ratings. We expected that actors would view their chosen important value as more revealing of themselves than observers would and that this self—other difference would be mediated by actors' tendency to believe, more so than observers, that their important value was intensely important to them (relative to other values).

Method

Participants

A total of 110 Princeton undergraduates participated in exchange for course credit.

Procedure

Speaker condition. Each speaker participant was asked to begin by writing down one or two values "that are important to you in your life" and was told that these "could be things like artistic or musical skills or appreciation, financial security, sense of humor, relations with friends/family, spontaneity/living in the moment, social skills, educational accomplishment, creativity, organizational/managerial skills, or physical health." This list of values was adapted from Steele and Liu's (1983) adaptation of Allport et al.'s (1960) values scales. Participants were asked to think about the value (or one of the two values) that they had chosen and to provide a 1 min recording describing a personal experience that illustrated its importance to them.

They then were asked to provide two additional recordings like the previous one, but for these, they were told which values to discuss. These values were randomly selected for each participant from the list of values that the experimenter had previously read (with the caveat that this selection process excluded any value about which the participant had already spoken). Finally, participants completed our dependent measures.

Listener condition. Listener participants were informed that they would be hearing a recording provided by another student who had been in the experiment. They were told that "this other participant was asked to make a recording about three different values or characteristics as they related to him or her." They were further informed that the first of the three values that the participant described "was something that the participant selected as

important in his or her life," whereas the other two values were selected by the experimenter and included "things like *artistic or musical skills or appreciation, financial security* [etc., see above]." After listening to their yoked peer's recording, observers completed our dependent measures.

Dependent Measures

The dependent measures began by asking participants to answer each question with regard to the value that they (or their yoked speaker) had specifically selected as important. As an experimental assurance, participants were asked to indicate that value before continuing (all participants did so correctly). Participants then responded to a question concerning our hypothesized mediator: "How important is this value to you [the student] relative to how important the other values that you [he/she] spoke about are to you [him/her]?" (1 = much less important, 4 = about the same, 7 = much more important). The next two questions involved our dependent variable of perceived revelation (Cronbach's $\alpha = .76$). For speakers, these questions were as follows: "How much does the importance of this value in your life reveal about who you really are and what you are really like?" (1 = not much at all, 7 =extremely much) and "In order for another Princeton student to truly know you, how important would it be for that student to understand the importance of this value to you?" $(1 = not \ at \ all$ important, 7 = extremely important). The same questions were posed to listeners, with appropriate wording changes so that they were asked about a yoked speaker's chosen value.

Results and Discussion

Consistent with our hypothesis and previous results, participants felt that more was revealed about themselves by virtue of what was important to them than was revealed about a peer. On our two-item measure, speakers thought more was revealed about them by virtue of their important value than did listeners (M = 5.77 vs. M = 4.85), F(1, 54) = 29.85, p < .001.

Also consistent with our predictions, speakers were more likely to feel that their chosen important value was more strongly important to them than the other values about which they spoke than were listeners (M = 5.87 vs. M = 5.27), F(1, 54) = 9.12, p = .004. This result emerged even though listeners were fully aware that the speakers specifically chose their important value because of its special importance to them and that the other values about which they spoke had been assigned to them. Across participants, beliefs that the value was especially important to the speaker predicted beliefs about how revealing its importance was, and this correlation was apparent for both speakers, r(53) = .35, p = .008, and listeners, r(53) = .39, p = .003. Mediational analyses revealed that differences in speakers' versus listeners' perceptions of the relative importance of speakers' most important value mediated the reported effect ($\beta = .25$, SE = .12), t(52) = 2.11, p = .04. There was no evidence that those differences moderated the effect, as the sum of speakers' and listeners' importance perceptions was not a significant predictor in the model (t < 1, ns). Further testing revealed that the intercept in the model with the sum variable centered was significant (t[52] = 4.28, p < .001), thereby indicating that the observed mediation was partial rather than full (see Judd et al., 2001).

In this experiment, participants were asked to describe personal experiences in which various values played a role in their lives, or they listened to one of their peer's offering such descriptions. Speakers felt that their most important values revealed more about their true selves than did listeners, and this effect was mediated by speakers' feelings that their most important values were more intensely important to them (relative to their other values) than observers thought those values were.

In our next experiment, we sought to explore a few interesting questions raised by these results. For one, we wondered whether these results would occur in a context of actual and ongoing mutual disclosure between peers. Such a result, if found, would speak to the generalizability of this phenomenon. Our previous experiments suggest that the phenomenon applies to distant value disclosures, such as those that might occur on an Internet dating site or via a college applicant's personal statement. It would be interesting to know whether it also applies to more proximal ones, such as those between peers opening up to each other.

Our next experiment also sought to address questions of underlying process. We have suggested that the value-revelation effect involves actors' perceptions about the strength and intensity with which they care about those things that are important to them. However, we have not tested the alternative possibility that the effect involves actors' overestimating the uniqueness of their most treasured values and therefore viewing those values as more diagnostic of who they are. Our next experiment sought to examine this possible mediator as well as the one we have proposed.

Value Revelations and Other Revelations

The asymmetric insight illusion, whereby people come to think they have learned more about others than vice versa in social interactions, may represent a sort of flipside of the effect explored in this article. That is, that effect may be rooted in part in people's internal impression that their own off-the-cuff conversational remarks, such as their relatively unmonitored and superficial responses, are not especially revealing (an impression that they lack when it comes to others' responses). This hypothesis also is suggested by the results of Study 1. In that study, the value revelation effect was not mirrored by a similar effect when participants reported their stream of consciousness. In experiments on the asymmetric insight illusion (Pronin et al., 2001), the off-thecuff responses that participants were asked to provide included things such as answers to projective questions (e.g., "If you could be a crayon, what color would you be?") and rapid completions of word fragments (e.g., G_ _L, _ _TER, P_ _N, etc.). Our next experiment sought to test not only whether people would view their value disclosures as more revealing than those of others but also whether they would view their responses to questions like these as less revealing. This latter result would provide further support for our analysis of underlying process while also suggesting a potential source of the asymmetric insight illusion in social interaction.

Thus, we predicted three primary results for Study 4. We predicted that the effect found in Studies 1–3 of this article would (a) occur in a context of mutual disclosure, (b) be mediated by perceived intensity rather than perceived uniqueness, and (c) occur at the same time that people would view their relatively unmonitored responses as less revealing than those of a peer. By showing

that value revelations engender the effect but that revelations elicited from projective responses do not, the results of this experiment could lend further support to our hypothesis that people view important values as uniquely revealing because of the deeper feelings that they attach to those values—deeper feelings that they are unlikely to attach to responses that introspectively feel "random" or situationally elicited. Studies 5 and 6 further pursue this hypothesis about the nature and boundaries of the value revelation effect. They do so by examining perceptions of actors' revelations involving unique (but less intensely held) values (Study 5) and actors' revelations about values that those actors do not personally hold (Study 6).

Study 4: Mutual Disclosure

Pairs of previously unacquainted students revealed to each other their most important values and their idiosyncratic responses to projective questions. We predicted that in this mutual disclosure setting, participants would view their most important values as more self-revealing than they would view their conversational partner's. We further predicted a two-way interaction effect whereby participants would show the opposite tendency when considering how much was revealed by their own versus another's responses to projective questions.

Method

Participants

Fifty-six Princeton undergraduates participated in pairs in exchange for course credit.

Procedure

Participants arrived at a laboratory and were seated facing each other. They were told that our research concerned social interaction and that they would be asked to speak about themselves to the other person in the experiment. The experimenter then said, "This study is about opening up. In the real world, when you meet someone, there are different ways that you can open up to them. We want you to open up in different ways." With that introduction, participants were led to provide and rate information of two different sorts, as indicated below.

Value revelations. Each participant was asked to take a moment to "jot down a few specific values or characteristics that are important to you in your life." The experimenter told the participants that these could be things like artistic or musical skills or appreciation, financial security, etc. (see Study 3). The participants were then asked to speak with each other by talking about one of their important values and describing "a personal experience where [that value] was important in your life." Once each participant had spoken, both participants were given our dependent measures, and the experimenter set up their chairs to face away from each other to give them a little privacy for completing those

Projective questions. Participants were next led to sit facing each other again, and they were told that they now would "be providing a very different sort of information" to their partner. They were told, "We'd like for you to provide some information to the other person by completing a series of statements about your-

self, in each case offering the first response that pops into your head." The statements, of which there were 20, were each of the same form (i.e., "If I were a color, I would be _____"; "If I were an animal, I would be _____"; "If I were a car, I would be _____"; etc.). After each participant had been through the series of statements, both participants again completed questionnaires, resembling those used for the value disclosures, with their chairs facing apart.

Dependent Measures

All participants completed a total of four similar questionnaires. They completed both speaker and listener questionnaires regarding both value disclosures and projective responses. Our primary dependent measure involved participants' perceptions of how revealing their most important values (or their projective responses) were of them and their disclosure partner. Regarding the value revelations, participants were thus asked, "In order for someone to truly know you [this person], how important would it be for them [one] to know how important the things you [they] spoke about are to you [them]?" Regarding the projective responses, they were asked, "In order for someone to truly know you [this person], how important would it be for them [one] to know how you [they] would complete these statements?" (for both questions, 1 = not atall important, 7 = very important). Participants also were asked two questions concerning potential mediators. They were asked about the intensity that they associated with their (and their partner's) values and projective responses. Specifically, they were asked "how strongly" they (and their partner) felt about "the values that you [they] spoke about" and "the statements that you [they] made" (1 = not strongly at all, 7 = very strongly). They also were asked about the degree of commonness versus uniqueness that characterized their (and their partner's) responses. Specifically, they were asked whether those responses (of values or projective reactions) "would be mentioned by most Princeton students or by very few Princeton students" (1 = almost no Princeton students, $7 = almost \ all \ Princeton \ students).$

Results and Discussion

Our primary hypothesis in this experiment involved a two-way interaction effect, comparing speakers' versus listeners' perceptions of value revelations versus projective responses. We expected that speakers would view their values as more revealing of their true self than would listeners but that the reverse would be true for projective responses—that is, listeners would view projective responses as more revealing than would speakers. To test this hypothesized interaction, we conducted repeated measures analyses of variance with dyad as the unit of analysis, using the mean across the responses of both participants in a dyad for responses involving the same question and role (i.e., we averaged across the responses of the two participants to produce one rating for the speaker role and one for the listener role). The resulting interaction effect (Role [speaker vs. listener] × Response [value vs. projective]), was significant, F(1, 27) = 10.31, p = .003. We next examined the two predicted simple effects. Consistent with the results of Studies 1-3 in this article, participants who had engaged in a mutually disclosing interaction about personal values felt that more was revealed by their own value revelations (M =

5.23) than by those of their interaction partner (M=4.67), F(1,27)=6.12, p=.02. Consistent with the results reported by Pronin et al. (2001), participants held the reverse perception about revelations from projective responses; they tended to feel that less was revealed by their projective responses (M=2.38) than by those of their interaction partner (M=2.61), F(1,27)=3.79, p=.06.

We next examined our two potential mediators involving perceived intensity and perceived uniqueness. In terms of intensity, we expected—consistent with the previous studies—that actors' tendency to associate intense feelings with their important values would mediate their tendency to perceive those values as especially revealing (i.e., relative to observers' perceptions). Indeed, participants reported that they felt more strongly about their own important values than their partners felt about their important values (M = 6.00 vs. M = 5.59), F(1, 27) = 4.72, p = .04. This difference mediated the actor-partner difference on our dependent measure (i.e., perceived revelation; $\beta = .49$, SE = .21), t(25) = .492.32, p = .03. Moreover, there were no significant differences in perceived revelation over and above those accounted for by this mediator, as indicated by the nonsignificance of the intercept in the sum-centered model (see Judd et al., 2001; $\beta = .33$, SE = .22), t(25) = 1.50, p = .15. We did not find evidence that affective intensity mediated the actor-partner difference in perceptions of the revelation of projective responses because there was no significant actor-partner difference in the perceived intensity of those responses (M = 2.96 vs. M = 2.68), F(1, 27) = 1.66, p = .21,though it may be worth noting that differences in the perceived intensity associated with projective responses were related to the greater perceived revelation of those responses ($\beta = .37$, SE =.08), t(25) = 4.74, p < .001.

We next examined perceptions of uniqueness. This potential mediator would involve actors being more likely than observers to perceive their important values as uniquely important to them—that is, as less commonly important across people. For value revelations, this was not the case: Actors were not less likely to believe that their most important value "would be mentioned by most Princeton students" (M = 4.64 vs. M = 4.80, respectively), F = 0.38, ns. Actor–partner differences on this variable also were not related to actor–partner differences on our dependent measure ($\beta = .06$, SE = .16), t(25) = .33, ns, thereby further suggesting the absence of mediation. In terms of the projective responses, actors tended to view their own responses as less commonplace than did observers (M = 3.13 vs. M = 3.45), F(1, 27) = 3.79, p = .06. However, that difference was not related to our measure of perceived revelation ($\beta = .05$, SE = .13), t(25) = .36, ns.

In this experiment, we found evidence for our value revelation asymmetry, in the context of mutual disclosure between peers. Moreover, we found that this asymmetry reversed when peers exchanged off-the-cuff responses rather than disclosing values. This study also provided further evidence for one source of the effect. That source involved perceptions of the strength with which actors hold their most important values rather than perceptions of

 $^{^{1}}$ No effects of order were apparent according to repeated measures analyses of variance comparing perceptions of speakers going first versus second and listeners going first versus second (for both value disclosures and for projective responses; Fs < 1, ns).

the uniqueness of those values. Actors did not view their most important values as more unique than did observers.

To more fully rule out the uniqueness hypothesis, in our next experiment, we aimed to manipulate rather than measure perceived uniqueness and to examine the effects of perceived uniqueness on the perceived amount revealed by actors' values. We expected that even when perceptions of uniqueness were manipulated, actors would not be sensitive to that factor in their revelation assessments but would instead be sensitive to the felt intensity of those values. Observers were expected to be less sensitive to intensity and, by virtue of taking a more outside perspective (e.g., Kahneman & Lovallo, 1993), perhaps more sensitive to the diagnostic property of uniqueness.

Study 5: Uniqueness and Intensity

In this study, participants (actors and observers) assessed the amount revealed by actors' testaments regarding values that those actors held with high intensity versus low intensity and that participants were induced to perceive as unusual versus commonly held. Thus, participants assessed the amount revealed by four different values in a $2 \times 2 \times 2$ mixed-model design with participant role (actor versus observer) as a between-subjects factor and with value intensity (high versus low) and manipulated uniqueness (unusual versus common) as within-subjects factors. A three-way interaction was predicted, whereby intensity would be more associated with perceived degree of revelation for actors than observers, whereas uniqueness might be more associated with perceived degree of revelation for observers than actors.

Method

Participants

A total of 84 Princeton undergraduates participated for course credit.

Procedure

Writer condition. Each writer participant was first asked to rank order a list of 11 values (e.g., romance, social life, honesty) "in terms of their importance to you." The experimenter then provided some background on the study, stating that it concerned people's values, "including some that are very important to you and some that are less important to you" as well as some that "are important to most students versus those that are important to few students." Each participant was told that "Ideally, we'd like to ask you tell us about a value that is important to you and that is also important to most students, one that is important to you and that is not important to most students, one that is not important to you but is important to most students, and one that is not important to you and is also not important to most students." Each participant was (falsely) told that "Depending on your responses we may not be able to ask you about all four of these things, if for example you did not list a value that is important to you but not so important to most students." With that explanation, the experimenter requested a minute to review the participant's rankings and prepare a tailored questionnaire.

Upon returning with a questionnaire, the experimenter commented (to bolster our cover story): "I liked your rankings because

you listed a value in each of the four categories that we try to ask people about, so that makes our life easy." Each participant's questionnaire contained four pages such that participants were asked about the amount revealed by four values in a 2×2 (Intensity [high vs. low] \times Uniqueness [unusual vs. common]) design. Each page had the name of a value handwritten at the top, followed by a sentence that summarized its importance to the writer and its alleged uniqueness in the student population. For example, in the high-intensity/unusual condition, the value that was handwritten was the one the participant ranked 2nd or 3rd (depending on random assignment) in importance, and the sentence following it said, "We are asking you to write about this value because you ranked it as one of your top most important values and also because only a minority of our participants rank it as one of their top most important values." In the high-intensity/ common condition, the assigned value was the one the participant ranked 3rd or 2nd (i.e., whichever was not used for the highintensity/unusual condition), and in the low-intensity conditions, the participant was assigned to the values that they ranked 8th and 9th (out of the 11 values). To ensure that the participant registered the intended differences among the four values being queried, the experimenter guided the participant through the questionnaire before leaving the participant to complete it. Thus, she showed the participant the first page (high intensity/common) and noted, "You ranked [value x] as one of your top most important values and the majority of our participants also labeled it as one of their top most important values." Turning to the second page (low intensity/ common), she noted, "You ranked [value y] as one of your less important values and the large majority of our participants also ranked it as one of their less important values." She continued like so for the remaining two pages. The participant then completed the questionnaire by first responding to the instruction to write "about a particular example of the value in your life" (with 8 ruled lines provided for that purpose) and then by responding to questions about how much the value revealed.

After completing the questionnaire, participants returned it to the experimenter and completed a final ranking sheet in which they were asked to rank the 11 values according to how they thought the majority of their student peers would rank them (i.e., such that they would rank as 1 the value that they thought their peers would most commonly rank as 1, etc.). This constituted a check on our method for manipulating the perceived commonness versus uniqueness of the values

Reader condition. Each reader participant was yoked to a writer (i.e., the participant from the prior experimental session). Readers were told that in the study they would "see the responses of another Princeton student regarding what that student told us about various values in their life." They were (correctly) told that "we first asked that participant to rank these 11 values in terms of how important they were to him or her." They then were furnished with a photocopy of that writer's rankings and instructed to review it. Next, they were told that their partner had been asked to "tell us about various values in their life, including some that were very important to them and some that were less important to them." They further were told that "we were also interested in their telling us about values that were important to most students versus those that were important to few students" and that "ideally, we wanted to ask students to tell us about a value that was important to them and that was also important to most students, one that was important to them and that was not important to most students [etc., see Writer condition section]."

The experimenter then showed each reader participant the photocopied questionnaire of a yoked writer, with the exception that the writer's responses to the dependent measures had been removed. The experimenter (truthfully) explained that the questionnaire had been "photocopied to include a couple of questions at the bottom of each page for you to answer." She then flipped through the pages and after doing so commented, "I like this participant's responses because they listed a value in each of the four categories that we try to ask people about." She then guided the readers through the questionnaire, as she had with the writers, to ensure that they registered the intended differences among the four values about which they were being asked. The readers then completed the dependent measures. Finally, they completed the same final ranking sheet that the writers had (asking them to rank the values according to how they believed the majority of their peers would).

Dependent Measures

Participants were asked two questions regarding the amount revealed by each of the four values about which they were queried. Writers were asked, "How much does the importance of this value in your life reveal about who you really are and what you are really like?" ($1 = not \ much \ at \ all, 7 = extremely \ much$) and "In order for another Princeton student to truly know you, how important would it be for them to understand the importance of this value to you?" ($1 = not \ at \ all \ important, 7 = extremely \ important$). These same questions were posed to readers, with appropriate wording changes such that they were asked about their yoked peer's values.

Results and Discussion

Because perceived uniqueness was manipulated in this experiment, we first checked to ensure that this manipulation was effective. It was: Participants reported that the values that were purportedly highly ranked by their peers would be highly ranked by those peers, and they reported that the values that were purportedly low-ranked by their peers would be low ranked by them, F(1, 41) = 65.63, p < .001 (see Table 1). This manipulation was significant for both writers, F(1, 41) = 7.75, p = .008, and readers,

Table 1 Perceived Rankings Among the Majority of One's Peers for Values Assessed in Study 5

Participant role	Purportedly highly ranked values	Purportedly low ranked values	
Actors (writers)			
M	7.73	3.85	
SD	1.99	1.84	
Observers (readers)			
M	6.69	5.08	
SD	1.61	1.77	
Pooled (all participants)			
M	7.21	4.46	
SD	1.37	1.28	

Note. Participants rank ordered a total of 11 values.

F(1, 41) = 4.01, p = .05, though it had a larger effect on writers, F(1, 41) = 14.20, p < .001.

Our main hypothesis in this experiment involved a $2 \times 2 \times 2$ interaction effect among participant role (writer vs. reader), value intensity (high vs. low), and manipulated value uniqueness (unusual vs. common). A three-way analysis of variance, with dyad as the unit of analysis, supported this predicted effect, F(1, 41) = 7.67, p = .008. To examine the specific nature of this interaction, we further explored it by separating it into two individual two-way interactions. One allowed us to examine actor–observer differences in the perceived amount revealed by high versus low intensity values, and the other allowed us to examine actor–observer differences in the perceived amount revealed by unusual versus common values (see Table 2).

First, we examined perceptions of values that differed in intensity. Across all participants, writers' high intensity values (i.e., ones ranked 2nd and 3rd out of 11) were viewed as more revealing than their low intensity values (ranked 8th and 9th), F(1, 41) = 38.47, p < .001. More important, and consistent with our predictions about underlying process, a two-way interaction test showed that writers were more likely than were readers to view intensely held values as more revealing than less intensely held ones, F(1, 41) = 24.71, p < .001. Writers saw their intensely held values as more revealing than their nonintensely held ones, t(40) = 8.39, t(40) = 8.39, whereas readers did not show a significant difference, t(40) = 1.71, t(40) = 1.71, t(40) = 1.71.

We next examined writers' perceptions versus readers' perceptions of the amount revealed by purportedly unusual values versus common values. Overall, participants viewed the purportedly unusual values (i.e., those that writers ranked as highly important but that most students purportedly ranked low and those that writers ranked as less important but that most students purportedly ranked high) as more revealing than purportedly common ones, F(1, 41) = 4.33, p = .04. Here, the two-way interaction was in the predicted direction but did not approach significance, F(1, 41) = .81, ns. Perhaps worth noting because of its consistency with our predictions, though, is that readers viewed the unusual values as more revealing than the common ones, t(41) = 2.00, p = .05, whereas writers did not (even though, according to the manipulation check, writers were more sensitive to the uniqueness manipulation), t(41) = .88, ns.

In this experiment, we manipulated participants' perceptions of the uniqueness of actors' values and found evidence to rule out the hypothesis that actors view the things that they value as revealing because they perceive those things as unique to them. Our manipulation of perceived uniqueness did not significantly affect actor participants' perceptions of revelation. By contrast, actors were powerfully affected by the intensity with which they held their values. And, consistent with our analysis of underlying process, they were more sensitive to that difference in intensity than were their observer peers. It is worth acknowledging that the difference between actors' treatment of intensity and uniqueness may have been influenced by the fact that the two factors were assigned in somewhat different ways, that is, actors indicated which values they held more intensely, versus less intensely, whereas the experimenter informed actors which values were more versus less unique (though, notably, actors accepted that information according to a manipulation check). Study 6 addressed this concern in

Table 2
Perceived Amount Revealed by Values Varying in Intensity and
Perceived Uniqueness in Study 5

	Values varying in intensity		Values varying in uniqueness	
Participant role	High intensity values	Low intensity values	Unusual values	Common values
Actors (writers)				
M	5.24	3.52	4.46	4.30
SD	0.88	1.21	1.01	1.05
Observers (readers)				
M	4.64	4.25	4.65	4.23
SD	0.87	1.17	0.92	1.06
Pooled (all participants)				
M	4.94	3.89	4.56	4.26
SD	0.66	0.83	0.71	0.66

Note. Participants assessed amount revealed on 7-point scales.

addition to its main goal, described below, by having actors provide their own assessments of both uniqueness and intensity.

In the studies that we have presented thus far, our focus has been on people's perceptions of how much is revealed by the things that they (or other individuals) value. A related question, suggested in part by this experiment, concerns how much people think is revealed about themselves (or other individuals) by the values that they (or others) do not value. Based on our analysis of underlying process, we expected that participants would not view it as particularly revealing when they did not hold certain values because we expected that their lack of possession of those values would not have the same intensity to it as would their possession of the values they care about. Thus, for example, we expected that participants who valued family but not financial security would feel quite strongly about the importance of family to themselves (and would therefore view their possession of that value as revealing) but would feel less strongly about the unimportance of financial security (and would therefore view their lack of possession of that value as not particularly revealing). Of course, the opposite prediction is also possible, whereby people might feel intensely about the things they do not value and would thus view their nonpossession of those values as revealing. In our next study, we explored this question while also seeking further evidence regarding the mediating effect of perceived intensity versus uniqueness.

Study 6: Perceived Revelation of Values and Nonvalues

Actor participants (writers) were provided with a list of possible values. For each one, they were asked to indicate whether it was important to them and to describe why it was or was not important to them. Then, both writers and yoked observers (readers) evaluated the importance, uniqueness, and amount revealed by the actor's assertions of their values.

Method

Participants

A total of 78 Princeton undergraduates participated in exchange for course credit.

Procedure

Writer condition. Writer participants were given a list of 15 values (romance, social life, honesty, etc.) adapted from Steele and Liu's (1983) adaptation of Allport et al. (1960). For each value on the list, they were asked to indicate whether it was important to them (by circling it if it was) and to then write a sentence about why the value was or was not important to them. Finally, they completed our various mediational and dependent measures.

Reader condition. Reader participants were informed that they would be shown another participant's study responses and asked some questions about those responses. They then were furnished with a photocopy of a yoked writer participant's responses such that they saw, for all 15 values, whether that participant indicated that the value was personally important and what that participant had written about why it was or was not important. After looking over this information, they were asked to complete our various measures.

Measures

To test the mediating role of perceived intensity, participants [writers/readers] were asked, for each value on the questionnaire, to "think about how important that item is to [you personally/this student] relative to the average Princeton student" and to provide a number from 1 to 100, indicating percentile rank. To help them with this task, they were told, "So, for example, if you think that the item is more important to [you/this student] than it is to 90% of Princeton students, write a 90. If you think that the item is more important to [you/this student] than it is to 10% of Princeton students, write a 10."

To test the mediating role of perceived uniqueness, participants were asked, for each value on the questionnaire, to "think about how common or uncommon it is for that item to be important to a Princeton student" and to provide a number from 1 to 100, indicating the percentage of Princeton students to whom the item was important. Additionally, they were told, "So, for example, if you think that the item is important to 90% of Princeton students, write a 90. If you think that the item is important to 10% of Princeton students, write a 10."

Finally, participants completed our dependent measure of perceived revelation. Writers were told to imagine that "another Princeton student is trying to get to know you," and readers were told to imagine that they were "trying to get to know this student." Participants [writers/readers] then were asked, "For each of the values in the questionnaire, think about whether [that student/you] would need to know whether that item is important to [you/this student] in order for [them/you] to understand the real [you/them]." Their response scale ranged from 1 (would not need to know that) to 7 (would need to know that).

Results and Discussion

To examine our predictions, we used a simultaneous multilevel modeling procedure, as recommended by Hoffman and Rovine (2007). We analyzed effects of participants' roles as writers versus readers (a between-subjects variable) on their assessments of the amount revealed by values and nonvalues (a within-subjects variable). We also examined whether potential differences in writers'

perceptions versus readers' perceptions of value intensity and uniqueness mediated effects of participant role on assessments of the amount revealed by values and nonvalues. In the multilevel model, value items (e.g., romance, honesty) constituted our Level 1 variable and were nested within participants (Level 2 variable), who were nested within dyads (Level 3 variable). The multilevel model enabled us to control for dependencies within dyads between actors and observers and also for dependencies within participants among responses to the different value items. Our multilevel modeling analyses were conducted with a restricted maximum likelihood approach, implemented with the SPSS MIXED procedure.

First, we tested whether writers and readers differed in their perceptions of how much was revealed about writers by the complete list of values (i.e., including those they valued and did not value). Writers showed no tendency to view those 15 potential values, as a whole, as more revealing of them (M = 4.67) than did readers (M = 4.60), t < 1, ns. We next sought evidence for our usual effect of an actor-observer asymmetry in perceptions of the amount revealed by actors' values (i.e., as opposed to their nonvalues). First, we examined the two-way interaction effect of Participant Role (writer vs. reader) × Value Status (value vs. nonvalue). As expected, a significant interaction effect emerged $(\gamma = .96, SE = .20), t(583) = 4.88, p < .001$. Consistent with our primary hypothesis in this article, writers considered their personal values (i.e., the items they circled) to be more self-revealing than readers considered those values to be $(M = 5.16 \text{ vs. } M = 4.82; \gamma =$.34, SE = .15), t(37) = 2.24, p = .03. By contrast, writers considered the items that they did not value (i.e., the items they did not circle) to be less self-revealing than did readers (M = 3.43 vs. M = 4.02; $\gamma = -.59$, SE = .22), t(34) = -2.68, p = .01. Taken together, these results indicate that writers did not view just any possible value as more revealing of themselves than did readers, but rather they only viewed those values that they personally held as more revealing.

We next examined the potential role of perceived intensity in mediating the tendency for people to view their important values as more self-revealing than others perceived those values to be. First, we found an effect of participant role whereby writers reported feeling more strongly about the whole set of 15 values than readers thought they felt (M = 54.88 vs. M = 41.11; $\gamma =$ 13.77, SE = 3.01), t(38) = 4.58, p < .001. This effect was qualified by a significant interaction ($\beta = 4.83$, SE = 2.28), t(562) = 2.12, p = .03, such that when it came to the items that they valued, writers were especially likely to feel that those values were more strongly important to them than were readers (M =63.48 vs. M = 48.73; $\gamma = 14.75$, SE = 3.60), t(38) = 4.10, p <.001. Feelings of intensity mediated the effect of participant role (writer versus reader) on the perceived amount revealed by writers' values. When the effect of participant role was included in the model predicting perceived revelation, perceived intensity continued to exert a significant effect ($\gamma = .02$, SE = .003), t(741) =7.49, p < .001. The Sobel test advocated by Baron and Kenny (1986) indicated that the observed mediation was significant (z =2.15, p = .03). The effect of participant role no longer reached statistical significance when perceived intensity was included in the model ($\gamma = .28$, SE = .17), t(45) = 1.69, p = .10.

In the case of the items that participants did not value, writers again felt more strongly about those values than readers thought they did, though the pattern was less pronounced (M = 31.89 vs. M = 24.36; $\gamma = 7.53$, SE = 2.77), t(31) = 2.72, p = .01. In this case, the mean ratings of participants' responses indicate that writers did not disavow those values as much as readers thought they did. The effect of participant role on perceived revelation was not mediated by feelings of intensity. Writers' tendency to view the things they did not value as less self-revealing than readers perceived those things to be was not driven by a difference in the perceived strength with which those values were held. After controlling for the effects of participant role in the regression equation predicting perceived revelation, there was no remaining effect of affective intensity ($\gamma = .006$, SE = .006), t(244) = 1.01, p = .32.

Finally, we examined participants' perceptions of the uniqueness of the various values. The results did not support the notion that perceived uniqueness mediated our basic effect. There was no effect of being a writer versus being a reader on participants' estimates of the percentage of other Princeton students they thought shared the various values (M=70.09 vs. M=69.86), t<1, ns. Contrary to a false uniqueness account, participants did not view the items that they personally valued as any more unique than did their yoked peers (M=71.40 vs. M=72.16), t<1, ns. The same pattern emerged for the values that participants deemed personally unimportant (M=65.46 vs. M=64.18), t<1, ns, indicating that participants also did not think that their absence of valuing a particular value was particularly unique among their peers.

This study provides further support for the mediating role of affective intensity in actors' versus observers' perceptions of the amount revealed by actors' important values. Actors' perceptions of the amount revealed by their important values were mediated by their increased view (relative to observers) that those values were deeply and meaningfully important to them. This asymmetry in the perceived revelatory nature of value disclosures was not due to actors' being more likely than observers to think that their important values were unique. Actors did not show a false uniqueness tendency to view their values as any more unusual or unique than did observers. Finally, we found suggestive evidence in this study that actors do not consider just any values to be more revealing of them than do observers. Actors considered only the values that they held to be more revealing (they considered their lack of possession of particular values to be less revealing than did observers).

General Discussion

The road to establishing intimacy is rife with roadblocks. Individuals may wish to be close with others who do not reciprocate their affections, or circumstances may prevent people becoming close, even when there is a mutual affection. The present research concerns another roadblock: people themselves and, in particular, their perceptions of what constitutes a meaningful self-disclosure. Our results suggest that attempts to establish intimacy via value revelations are likely to fall short. In the starkest of cases, people are likely to feel that they have opened up and revealed an essential part of themselves, whereas observers are likely to feel that little of meaning has been exchanged.

A Self-Other Asymmetry in Perceptions of Value Revelations

It is common in everyday interactions, ranging from job interviews to romantic dates, for people to reveal what they truly care about and value. The present experiments demonstrate the tendency for people to view information about what they value as more revealing of them than others perceive it to be. We show this to be the case in a number of contexts. For example, participants in Study 2 felt that their disclosures regarding how much they valued their family revealed more about them than their fellow students felt those disclosures revealed. Participants in Studies 3 and 4 felt that an important value of their choosing spoke more to who they truly were than another student felt it did. Finally, participants in Studies 1, 5, and 6 felt that their disclosures of numerous things that they held dear revealed more about them than their fellow students felt those disclosures did. Moreover, actors not only viewed their own value disclosures as more revealing than did observers, but they also viewed their possession of those values (and the importance of that possession to them) as more revealing than did observers.

This self-other asymmetry in perception of value revelations also persisted across a number of different sorts of communication. It occurred when participants provided small snippets of information either on a tape recording (Study 1) or in writing (Study 6), as well as when they provided more in-depth descriptions, either via written testaments (Studies 2 and 5), detailed monologues (Study 3), or live in-person disclosures (Study 4). Indeed, the observed asymmetry emerged both when participants simply listed things that were important to them, as in Study 1 (without any effort to open up and without any explanation for the importance of those things) and when they engaged in a substantial discourse about a particular value and what it said about them, as in Study 4. Whether participants wrote about or spoke about an important value, or a set of important values, and whether their communication was brief or detailed, anonymous or exchanged in mutual interaction, the same self-other asymmetry emerged.

In addition to providing evidence for a self-other asymmetry in perceptions of value revelations, the present research also provides some evidence for a source of the asymmetry. Two possible sources were explored: one involving actors' perceptions of the intensity with which they hold their most important values and the other involving actors' perceptions of the uniqueness of their most important values. The former mechanism, but not the latter, received support. For example, in Study 6, actors assessed 15 values that differed in their importance to them and showed no tendency to view their important values as particularly unique to them (Studies 4 and 5 also helped to rule out this uniqueness account). In further support for the underlying process involving actors' perceived strength of feeling about their values, we found that the value revelation effect was reversed for responses that were less intensely held, either because they were generated quickly and spontaneously in response to unfamiliar questions (Study 4) or because they involved people's nonvalues as opposed to their values (Study 6). When participants were simply left to provide their unguided stream of consciousness (Study 1), the effect was eliminated, although its reversal

was not significant (perhaps reflecting the greater diversity in what participants voiced in that unguided condition). The observed reversal in the case of disclosures of less intensely held information is notable. Although actors may reject any deeper meaning in such information, observers may readily infer it—perhaps from lay personality theories or group stereotypes, combined with an inclination toward dispositionism. This asymmetry also could undermine the success of social interactions. A cigar smoker who sees his cigar as "just a cigar" (as Freud allegedly did) may feel annoyed and misunderstood by those who view his smoking as revealing latent sexual urges or obsession with the trappings of status.

Value Revelations in Everyday Life

In everyday life, people are likely to disclose their values in a variety of contexts. When exploring the possibility of a relationship with a potential romantic partner, people may divulge what is most important to them in life, whether this be by opening up over a candle-lit dinner or by putting such information into a profile on an Internet dating site. Such revelations are also likely to occur during the establishment of platonic relationships, such as those between potential friends or roommates, in which individuals may wish to know whether their compatibility extends beyond merely superficial qualities. Even high school students applying to selective colleges are expected to divulge what is most important to them in the form of written personal statements to be read by groups of people they have never met. Indeed, research on selfdisclosure has identified its importance in interpersonal interactions ranging from those among college freshmen adjusting to their new surroundings (e.g., Wei, Russell, & Zakalik, 2005) to those among online singles seeking out dating prospects (e.g., Gibbs, Ellison, & Heino, 2006), partners in intimate relationships (e.g., Sprecher & Hendrick, 2004), and clients in psychotherapy (e.g., Farber, 2003).

People's tendency to engage in value revelations occurs across different social relationships and modes of social interaction. In our experiments, participants typically provided revelations to an anonymous fellow student, or they were exposed to the revelations of an anonymous fellow student. Although they perhaps knew (or felt they knew) a fair amount about their experimental partner by virtue of knowing that the person was a fellow student at their university, they had no prior relationship. The value revelations examined in this research also generally occurred at a distance via written or taped disclosures. Study 4 presented an important exception to this general paradigm because it showed the same results when participants mutually disclosed their values to each other in a live and ongoing conversation. Finally, due to the requirements of exerting experimental control, participants' revelations were, to varying degrees, controlled and prompted by the experimental situation rather than spontaneously offered.

These characteristics of our studies make them relatively different from some disclosure contexts, such as conversations between romantic partners, but relatively similar to other contexts, such as students providing personal statements to colleges, singles exchanging information online, or peers interviewing each other as potential roommates or colleagues. Because value revelations are so diverse in nature, it would be interesting for future researchers to examine whether these variations affect the self-other asym-

metry observed in this research. A useful place to start might be to examine the effects of varying characteristics such as anonymity, physical interaction distance, and prior relationship status. For example, it is possible that participants in our studies felt that they revealed a good deal about themselves because the person to whom they did the revealing knew so little about them to begin with (though, of course, one might have expected this lack of prior knowledge to lead observers to feel that they learned a good deal relative to where they started!). The asymmetry might thus be mitigated in close relationships in which people tend to know more about each other and also, building on our analysis of underlying mechanism, in which people tend to be more aware of the private thoughts, feelings, and internal reactions that their partners associate with their most important values.

Motives and Value Revelations

Another notable aspect of the present experiments is that participants generally revealed their values without being given an explicit reason for doing so (with the exception of Study 4, in which participant pairs were told the purpose was for them to open up to each other). Often when people disclose their values, they do so for a reason. They may talk to their children about the importance of honesty, hard work, and tolerance to convey the values they hope their children will adopt. They may tell a prospective employer about how much they value their career as a way of ensuring that the employer knows how much passion they will devote to it (or, they may tell the employer about how much they value their family as a way of ensuring that there is an understanding about how much time they intend to devote to it). People even may provide such revelations simply out of a basic desire to be known and understood (e.g., Murray et al., 2002; Reis & Shaver, 1988; Swann, 1987). Especially in the American cultural context, in which people tend to view themselves more independently than interdependently, personal values and their expression are likely to be particularly central to individuals' identities (e.g., Kim & Sherman, 2007; Markus & Kitayama, 1991).

The present research concerns how much people believe is revealed by their own and others' value revelations; it does not concern the motives that lead people to provide such revelations. Nevertheless, these two factors could interact in interesting ways. For example, it could be that people are inclined to view an individual's value revelations as more revealing when they know that the individual has provided that information out of a desire to increase intimacy. By contrast, if they know that the individual is providing that information as an attempt at ingratiation, they may find it less revealing. Indeed, attribution research suggests that when people can attribute someone's behavior to social desirability motives, they will be less likely to draw a dispositional inference about that person (e.g., Fiske & Taylor, 1991).

This discussion raises an interesting question about individuals' value revelations. Those value disclosures have been discussed in terms of how much people believe those disclosures reveal. And, it is likely that people often provide such revelations in an effort to help others know and understand them. In this regard, the present research provides an important warning to would-be disclosers: Attempts to be known and understood by revealing important values are likely to be less successful than one might expect, as others will be more inclined than oneself to view those disclosures

as banal and uninformative. Of course, this warning is unlikely to be heeded. After all, when we choose to reveal our most important values we do so under the impression that those values are especially important to us—and are therefore especially revealing.

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