

Return of the Ego—Self-Referent Information as a Filter for Social Prediction: Comment on Karniol (2003)

Joachim I. Krueger
Brown University

The protocentrism paradigm of social prediction (R. Karniol, 2003) challenges the egocentrism paradigm tacitly accepted by many researchers. The author reviews the 2 paradigms comparatively by focusing on 3 conceptual and 3 empirical issues. On conceptual grounds, the author suggests that the egocentrism paradigm has been proven useful because of (a) its greater breadth and parsimony, (b) the difficulties in documenting the origin of protocenters, and (c) the indeterminate nature of self-as-distinct tags (which are crucial to protocentrism). On empirical grounds, the author argues that in research on perceptions of self–other similarities, the egocentric process of social projection is well-established. Self-referent knowledge (a) is most readily accessible, (b) receives greater weight in prediction tasks than does other-referent knowledge, and (c) tends to be suppressed only temporarily, with effort, and incompletely.

Assessing the status of the self in social prediction, Karniol (2003) questioned the prevalent metatheory of egocentrism. According to this metatheory, situational cues automatically activate self-referent knowledge. People then use this knowledge to predict the responses of others, be they individuals or groups. To the extent that individuating information about others is also available, the resulting predictions are compromises between that additional information and the predictor's own egocentric generalizations. This metatheory has rarely, if ever, been articulated so clearly, perhaps because its assumptions have been uncritically accepted for too long. Karniol's exposition is thus a breath of fresh air. It forces the field to review the validity of these assumptions, not in the least because Karniol presents an alternative view, which reverses the received wisdom at every turn.

The alternative protocentrism paradigm considers beliefs concerning the attributes of the generalized or prototypical person to be the bedrock of social prediction. Protocenters are said to influence predictions in two ways. First, people assume by default that they share the attributes of the protocenter. Thus, many attributes of the self match the protocentric attributes because the former are derived from the latter. Because many protocentric attributes also affect how other individuals are perceived, these others appear to be similar to the self. This similarity is, however, fully mediated by the shared protocentric source. Second, people recognize idiosyncratic differences between themselves (or another individual) and the protocenter by way of direct comparisons. Attributes tagged as being distinctive then form the core of the self-concept.

The theoretical value of the protocenter model depends on the clarity of its conceptual structure; its empirical viability will depend on the success with which it can account for existing data and its fertility in generating novel and testable hypotheses. In my view, three conceptual issues need to be resolved for the protocentrism paradigm to become more compelling. In regard to its empirical status, I review three sets of findings from research on consensus estimation. These findings lead me to conclude that at the present time the conventional view of egocentrism is supported rather well.

Conceptual Issues

Breadth and Parsimony

The egocentrism paradigm has been fruitful, in part because of the broad range of its hypotheses. Like a totalitarian government, the ego has been said to shape perception in such a way that it protects a sense of its own good will, its central place in the social world, and its control over relevant outcomes (Greenwald, 1980). Recently, research has shown that much of this psychological work occurs implicitly (i.e., with little effort or awareness) and that a variety of egocentric effects in perception and behavior lie outside the domain of prediction addressed by the protocenter paradigm (Greenwald et al., 2002). The protocenter paradigm thus attempts to recast only a subset of empirical findings hitherto assumed to be egocentric.

The relevant subset is concerned with the processes that enable people to make social predictions. From the point of view of the egocentrism paradigm, social predictions, in large part, arise from or are filtered by the ego. The ego is the locus of experience and thus a wellspring for predictions about others. Because of its immediacy and its dependence on sense perception, experience tends to overpower theory (Gordon, 1992). People believe others, for example, when they say they answered the phone because it was ringing or that they raided the refrigerator because they were hungry. These explanations are experiential, egocentric, and usually correct. Alternatively, one might say that people explain their own behaviors by relying on theories about what the typical or

I thank David Budescu for introducing me to the literature on advice taking and Bertram Malle for his guidance to the simulation literature. Russ Clement performed the reanalysis of the response-latency data. Mark Alicke, Russ Clement, Robyn Dawes, Jill Krueger, Jordan Robbins, and Judith Schrier provided helpful comments on a draft of this article.

Correspondence concerning this article should be addressed to Joachim I. Krueger, Department of Psychology, Brown University, Box 1853, 89 Waterman Street, Providence, Rhode Island 02912. E-mail: joachim_krueger@brown.edu

protocentric person would do in the same situation (see Nisbett & Ross, 1980, pp. 211–212).¹ But that seems circuitous. The parsimony of the egocentrism paradigm lies in its willingness to link a person's response directly to a stimulus without requiring mediation by generic representations.

How Do Protocenters Arise?

As generic representations of what people are like, protocenters are removed from sensory data, which raises the question of their origin. Socialization and acculturation may enable the maturing individual to recognize and act according to social "scripts" (Schank & Abelson, 1977), but these generic representations capture regularities of behavior, not base rates of personal attributes. Attribute-based protocenters may be "developed by abstracting similarities" and they may mature through "gradual refinement" (Karniol, 2003, p. 568). These processes are fundamentally inductive in nature. Induction seems to decline, however, once the protocenters are established.

In contrast, the idea of egocentrism allows people to continually acquire new information regarding the attributes of individuals (themselves included) and to generalize this information to social groups. The logic of this idea applies a fortiori to situations that preclude any preexisting knowledge. When categorized as a member of a novel group, for example, a person may review his or her own attributes and then infer that other members of the group are similar (Krueger & Clement, 1996). When a new attribute is introduced into the participant's self-concept through engineered feedback, this new information can be projected to in-group members (Cadinu & Rothbart, 1996). In other words, people can construct protocenters after experiencing a change in the self-concept, and these post hoc constructions will differ inasmuch as people's self-concepts differ. In any ecological (nonlab) environment, projective predictions yield a fair amount of accuracy because they capitalize on the actual similarities found across people. With respect to any particular response or personal attribute most people are, by definition, more likely to be in the majority than in the minority.

Some studies have directly compared the direction of the inference process. In the prisoner's dilemma, most players believe that their opponents' choices of cooperation or defection will match their own. According to the protocentrism paradigm, this belief results from a top-down inference. Players can see their anonymous (i.e., deindividuated) opponents only in protocentric terms, and they make their own behavioral choices with reference to that protocenter. According to the egocentrism paradigm, however, the belief in the similarity of behavior results from a bottom-up inference. Players choose to cooperate or to defect and then assume that their opponents will act likewise. Using an ingenious analysis of response variability, Dawes, McTavish, and Shaklee (1977) found that players' predictions of opponent behavior not only covaried with their own choices but also were more variable than the predictions made by uninvolved observers (see Krueger, Acevedo, & Robbins, in press, for replications of the response-variability effect). The protocenter hypothesis suggests that players and observers generate, on average, the same distribution of predictions.

Experiments in the minimal group paradigm have shown that inductive inferences from the self to the group are about twice as

strong as inferences from the group to the self (Cadinu & Rothbart, 1996). This asymmetry is further moderated by social categorization. People perceive greater similarities between themselves and in-groups than between themselves and out-groups (Clement & Krueger, 2002). This additional asymmetry is difficult to reconcile with the idea that in-groups are seen as more similar to the self "by virtue of shared experiences and greater familiarity" (Karniol, 2003, p. 573).

How Do Self-as-Distinct (SAD) Tags Arise?

In accounting for the contents of self-concepts, the protocenter paradigm stresses the importance of perceived uniqueness. When people are thought to know which of their attributes are not found in the protocenter, the question is how they identify the attributes that deserve SAD tags. To determine whether self-referent attributes are the same as or different from the protocentric attributes, one must have access to both sets of attributes before comparisons are made. If this is the case, it is hard to see how self-referent attributes can be derived from the protocenter. A case can be made either for the application of protocentric attributes to the self or for the comparison between protocenter and self-attributes but not for both. At minimum, the assumed process of tag identification cannot unfold in novel situations such as the minimal group paradigm, simply because no protocenters exist. Here, perceived similarities (and dissimilarities) can only be centered projectively around the ego.

Karniol (2003) has suggested that there are some clues in the literature on consensus estimation that might reveal how people identify SAD tags. First, people with a high need for uniqueness are obvious candidates for being the ones with the most SAD tags. Kernis (1984), however, did not find any clear-cut association between the need for uniqueness and consensus estimation. Instead, only those high-need participants who were also schematic on the trait of independence perceived low consensus, and they did so only when given sufficient time to think about the trait. Moreover, this conditional effect did not replicate for the trait of friendliness. Two other studies cited for absent or reduced consensus effects did in fact show positive effects (Kulik, Sledge, & Mahler, 1986; Sarason et al., 1991).

Second, people low in self-esteem perceive fewer similarities between themselves and the general population (Campbell, 1986). Does this mean that people with low self-esteem have more SAD tags? A study on depression suggests a different answer. Depression is highly and inversely correlated with both self-esteem and consensus bias. When asked to make consensus estimates with regard to other depressed people, depressed participants assumed the same degree of consensus as nondepressed participants did when making estimates with regard to other nondepressed people (Clement & Krueger, 2001). Members of neither group saw much similarity with members of the other. This pattern reflects the general in-group/out-group asymmetry in social projection. The finding that depressed people show less consensus bias in esti-

¹ When, however, students sit down in the classroom, they rarely say they felt like sitting down. Instead, they refer to a valid social norm. People drinking in a bar or praying in church can refer to a mix of internal desires and social norms that express what the typical person does.

mates about the general population simply suggests that they did not consider the population to be as much of an in-group as nondepressed people did. It does not mean that depressed people consider themselves to be more distinctive individuals.

The third clue refers to the distinction between personality traits and social attitudes. In general, consensus bias is smaller for traits than for attitudes, but it is not eliminated. The protocentrism paradigm suggests that it would be. The greater distinctiveness of the self-concept in the domain of traits makes sense inasmuch as, for example, claiming the trait of diligence for oneself implies the existence of lazy people whereas a professed love of poetry does not require the existence of illiterate boors. As a point of method, it is important to note that the reduced size of the consensus effect for traits emerges only when self-ratings are correlated with consensus estimates nomothetically (i.e., across people, one trait at a time). When correlations are computed idiographically (i.e., across traits, one person at a time), consensus effects are larger for traits than for attitudes (Krueger, 2000). In the domain of traits, people actually have access to a strong protocentric cue, namely the traits' social desirability. To see themselves as distinct, people would have to reject this cue, acknowledge that most people describe themselves positively, and then selectively embrace negative traits for themselves. Empirically, the opposite happens. People's ratings of trait desirability are more highly correlated with their own self-concepts than with their description of the generalized other (i.e., the protocenter; Krueger, 1998a).

The fourth and the fifth clues refer to differences in people's appraisals of the stimulus items. Some items are personally more relevant than others, and some self-ratings are more extreme than others. The empirical picture emerging from the study of these variables is not entirely clear. On the one hand, ratings of item relevance are so confounded with the extremity of self-descriptive ratings that the definition of a self-schema as the conjunction of relevance and extremity seems no longer necessary (Burke, Kraut, & Dworkin, 1984). On the other hand, judgments of relevance (or importance) do not moderate the size of the consensus bias (Fabrigar & Krosnick, 1995), whereas the extremity of the judgments does. The more decisively people endorse or reject an item with regard to themselves, the more similar they assume the response of most others to be (Krueger, 1998b). Either way, this pattern contradicts the idea that people turn to relevance or extremity as a means to identify SAD tags.

Apart from the literature on consensus estimation, there is the finding that people often describe themselves in ways that highlight their distinctiveness from others. Members of minority groups, for example, are more likely to note their group affiliation than are members of the majority (McGuire & McGuire, 1988). Still, in each reviewed study, only a minority of the minority members offered distinctiveness-based self-categorizations. Conceivably, people abide by the conversational norm of informativeness by limiting themselves to reporting distinct identities.

Empirical Issues

In this section, I consider the empirical base for the idea that people project their own experiences or attributes to others. On "the premise of distinctiveness-based encoding as reflecting the way in which self-representations are constructed," Karniol (2003) argued that perceptions of similarity "should be the exception

rather than the rule" (p. 567). Perceptions of similarity are very common, though. Naturally, effect sizes vary, but it is doubtful that a mere attenuation of perceived similarity negates the role of projection in prediction. Perceptions of dissimilarity would offer strong support for the protocenter hypothesis, but it is difficult to predict when such uniqueness biases will occur and whether they might replicate (Krueger, 2000).

Accessibility, Facilitation, and Order

A minimum requirement of causal inference is that the presumed cause precedes the effect. When response latencies are measured in studies of consensus bias, self-ratings are typically made faster than group ratings (Cadinu & De Amicis, 1999). Further evidence for the primacy of self-referent information comes from the findings that people report greater ease and confidence in making self-ratings and that self-ratings are more stable over time than are group ratings (Krueger & Stanke, 2001).

A recent study in my laboratory is particularly relevant because it allows a closer look at the interplay of the social target (self vs. group), the order in which the two types of rating are made (self-ratings first vs. self-ratings last), and whether self-ratings are the same or different than group ratings (shared vs. distinctive traits; Clement & Krueger, 2000). According to the egocentrism paradigm, self-ratings should overall be faster than group ratings, and trivially, the second (i.e., primed) set of ratings should be faster than first (i.e., priming) set. According to the protocenter paradigm, however, the type of trait (shared vs. distinctive) should enter into a complex interaction with both the type of target and the order of the ratings. Specifically, the postulated protocentric pattern may be summarized as follows: When they make self-ratings first, people respond faster to distinctive than to shared traits because only the former have the advantage of SAD tags. When they make self-ratings last, the effect is reversed because now the application of shared traits to the self is sped up by the preceding group ratings. When group ratings are made first, there is no difference depending on trait type because the distinctiveness of the self is irrelevant. When group ratings are made last, traits distinctive for the self have already been activated and thus rated faster than shared traits.²

Figure 1 displays the average observed latencies (based on data from Clement & Krueger, 2000). Consistent with egocentrism, self-ratings were faster than group ratings, $F(1, 30) = 18.39, p < .001$, and the interaction between target and order showed that ratings of the second target were faster than ratings of the first target, $F(1, 30) = 108.00, p < .001$. In other words, self-ratings were faster in the self-last condition than in the self-first condition, and group ratings were faster in the self-first than in the self-last condition. When analyses were limited to ratings of the second (i.e., primed) target, the temporal advantage of self-ratings over group ratings was still marginally significant, $F(1, 30) = 4.08, p = .053$. Recall that the protocentric hypotheses involved differences between shared and distinctive traits, but none were observed.

A good part of the case for the protocenter paradigm rests on the early meta-analytic finding that perceptions of similarity are reduced when participants make self-ratings before they make group

² I am indebted to Rachel Karniol for elaborating these hypotheses.

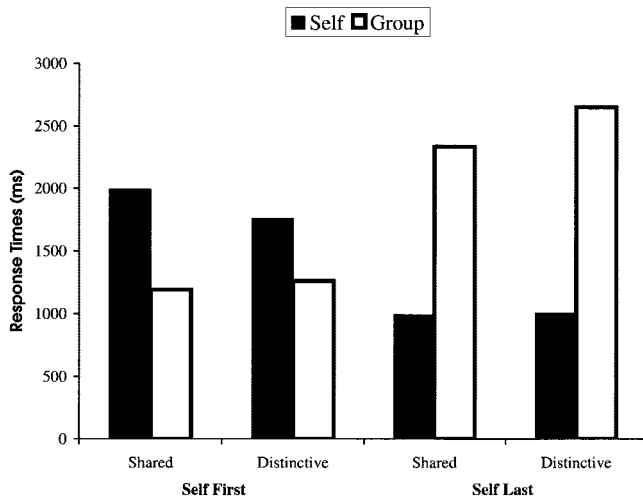


Figure 1. Response times for self-ratings and group ratings as a function of order of rating and trait distinctiveness (based on data from Clement & Krueger, 2000, Experiment 1).

ratings (Mullen et al., 1985). Again, however, strong evidence would consist of perceptions of dissimilarity in this sequence of judgments. Meta-analytically, the order effect is rather small, and it is often absent or even reversed in individual studies (e.g., Cadinu & Rothbart, 1996). Until the moderator variables that may account for the variation in effect size are better understood, it seems premature to stake too much theoretical capital on it.

Egocentric Weights

When people make estimates regarding a group, their self-referent information tends to override information available from other individual group members. Indeed, the size of the consensus bias is only marginally reduced when participants learn how multiple individual group members respond (Alicke & Largo, 1995; Krueger & Clement, 1994). Even when people are free to describe other individual group members, their own ratings of these others are less strongly related to their group ratings than their self-ratings are (Krueger & Stanke, 2001). In contrast, the protocenter paradigm might suggest that self-concepts include more distinctive features than impressions of other individuals. If so, protocentral information should be more likely to be applied to the other person than to the self.

The discounting of individual others in studies of consensus estimation reflects a broader egocentric pattern. When people consider advice, for example, they need to integrate their own prior hunches or preferences with the recommendations they recruit from others. In a study in which advisors were individually as accurate as the participants themselves, advice carried about half the weight accorded to prior opinions (Yaniv & Kleinberger, 2000). The authors attributed this egocentric weighting to participants' privileged access to their own reasons; thus their ability to recruit greater support for their prior opinions from memory. Recall, however, that in research on consensus estimation, predictions are egocentric even when the attributes in question are novel, in which case there is no enhanced memorial support for one's own position (Cadinu & Rothbart, 1996). In another study, prior

opinions overrode the advice given by others who were recognized as being highly trained and knowledgeable (Harvey & Fischer, 1997). These authors attributed egocentrism to the temporal primacy of self-referent information. But even temporal primacy is not a necessary condition for self-anchoring. In consensus estimation, predictions are more highly correlated with one's own responses than with the responses of individual others even when the others' responses are revealed before the participants have the opportunity to view the stimuli (and thus generate their own responses; Clement & Krueger, 2000).

Perhaps people generally distrust the opinions of others. If so, they should at least integrate their own judgments impartially. Research on the self-enhancement bias casts doubt on this hypothesis. Most people judge themselves more positively than they judge others. On comparative scales, they rate themselves above the midpoint of the scale; on absolute scales, they give higher ratings to themselves than to the average other person. Like other normative models, the protocenter paradigm suggests that the difference between the two absolute judgments should predict the comparative judgments. Most people, however, virtually ignore their own ratings of the average person when rating how happy (or how able) they are compared with that person (Klar & Giladi, 1999; Kruger, 1999).

Suppression

In most social settings, self-referent knowledge and other-referent knowledge are potentially competing cues for the prediction of others' traits, states, and attitudes. Because people are only similar to one another and not identical, the egocentrism paradigm assumes that self-referent knowledge must at least be partially suppressed if predictions about others are to be made accurately. Most efforts to measure perceived similarities and differences do not uncover suppression directly, but they show that even when making predictions about others they know well (e.g., spouses, cohabitants, and roommates), people seem more concerned with similarities than with differences (Kenny & Acitelli, 2001; Schul & Vinokur, 2000). Because the accuracy of the predictions continues to increase with the expectation of similarities, it is not clear at what point people should strive to curtail the role of self-knowledge.

Karniol (2003) noted that suppression is a difficult and tiresome mental process, but experiments have successfully demonstrated it when participants are asked to set aside certain kinds of information. Their occasional failures to ignore that information attest to the difficulty of this task. In the laboratory, suppression is induced by making participants understand that their self-referent knowledge is irrelevant for the predictions at hand. Then, residual correlations between self and prediction can be attributed to incomplete suppression (Kulig, 2000). One study showed how self-referent knowledge can intrude into predictions regarding other people's consensus estimates (Krueger & Zeiger, 1993). Predicted consensus estimates were highly correlated with the target person's own (known) responses to the stimulus items. However, the predicted estimates were equally correlated with participants' own responses, which the target person could not have known.

Feeling Unique and Similar at the Same Time

Both paradigms recognize that people are not overwhelmed by perceptions of similarity. At least in Western societies, the sense of being a unique individual is woven into most self-concepts (Brewer, 1991). The protocenter paradigm accounts for the sense of uniqueness by assuming that people can identify and tag their idiosyncratic attributes. The egocentrism paradigm can also accommodate uniqueness without suffering "logical contradictions" (as Karniol, 2003, p. 566, suggested). First, self-referent trait ascriptions rely heavily on multimodal experience and multiple standards of comparison (e.g., intraindividual comparisons; Chaplin & Buckner, 1988), whereas other-referent ascriptions are predictions in a more limited statistical sense. Individuals may say they are shy because they can feel the emotional correlates of this trait, whereas their predictions of shyness among others are bound to rely more heavily on nonemotional cues (including projective forecasts). Second, in the area of consensus estimation, pervasive projection effects do not negate perceptions of uniqueness. Even when a consensus bias emerges for every trait item studied, any individual can recognize that his or her profile of trait ratings is unlikely to be matched by any other individual. Thus, the sense of uniqueness can arise holistically from a configuration of attributes rather than locally at the individual trait level.

Finally, perceptions of similarity and uniqueness can coexist even under conditions of total projection. Suppose people rate themselves and the average other on a series of traits having to do with moral orientation. In this domain, self-ratings tend to be much higher than other ratings, indicating self-enhancement (Epley & Dunning, 2000). At the same time, the difference between self-ratings and other ratings may be the same for each trait, which would indicate projection. Similarly, actor–observer differences do not negate egocentrism (as suggested by Karniol, 2003, p. 567). Behavior appears to be more variable from the actor's perspective than from the observer's perspective. This is consistent with the hypothesis of privileged access, which is part of the egocentrism paradigm. At the same time, actors assume that observers, and observers assume that actors, see the target person as they themselves do (Krueger, Ham, & Linford, 1996). This is consistent with the simulation or projection hypothesis.

Conclusions

The ego is as totalitarian as ever. Whereas Greenwald (1980) stressed the selfish, jealous, and overconfident aspects of this metaphor, a more benign view is possible. As simulation theorists note, there are significant adaptive benefits in people's sensitivity to their own experiences and attributes. Gordon (1992) referred to the default mode of simulation as "total projection" that "we often get by with," without even "pretending" to be in the other person's shoes (p. 13). In the Conceptual Issues section of this article, I noted that recourse to ego-related information is not only adaptive but also simpler than the construction of a priori protocenters. In the Empirical Issues section, I showed that in the key area of consensus estimation, studies using a variety of research methodologies have yielded converging evidence for a strong egocentric base in social prediction.³

At the present stage of theoretical development, I propose that the egocentrism and the protocentrism paradigms capture different

conditions of the social world. The view underlying the egocentrism paradigm is that people often make judgments under uncertainty. When the responses of others are not known, people project their own as a first bet. When, however, there is a clear-cut protocentral script, no projection is necessary, and people can be expected to behave as others do (Cantor, Mischel, & Schwartz, 1982). Consider the example of the scripted sequence of events at a child's birthday party (Karniol, 2003, p. X). As my wife's grandmother put it, "You gotta have a cake. It's the American system!" Except for perhaps the lactose intolerant, everyone gets a piece. In other words, this protocenter captures a situation of zero or near-zero variance. It is a different matter to ask if little Stephanie liked her piece and if she thinks that most of her guests enjoyed theirs. This is when uncertainty, and thus projection, comes in.

³ The difference between the Humean and the Kantian views of perception offers a conceptual parallel. Whereas Hume rejected the validity of ideas not arising from sense perception or from the combination or transformation of such ideas, Kant postulated the necessity of a priori ideas, such as time and space. Sometimes, empirical data do send a clear message regarding theory. The hypothesis of the looking-glass self, for example, became a key element of the theory of symbolic interactionism (Cooley, 1902). Not unlike the protocenter hypothesis, it stated that people's responses to the social world are guided by their representations of the "generalized other" (Mead, 1934). But empirical work has not sustained this view. People's perceptions of how others see them turned out to be more similar to their own self-perceptions than to how others actually saw them (e.g., Kenny & DePaulo, 1993; Shrauger & Schoeneman, 1979).

References

- Alicke, M. D., & Largo, E. (1995). The role of the self in the false consensus effect. *Journal of Experimental Social Psychology, 31*, 28–47.
- 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.
- Burke, P. A., Kraut, R. E., & Dworkin, R. H. (1984). Traits, consistency, and self-schemata: What do our methods measure? *Journal of Personality and Social Psychology, 47*, 568–579.
- Cadinu, M. R., & De Amicis, L. (1999). The relationship between the self and the ingroup: When having a common conception helps. *Swiss Journal of Psychology, 58*, 226–232.
- Cadinu, M. R., & Rothbart, M. (1996). Self-anchoring and differentiation processes in the minimal group setting. *Journal of Personality and Social Psychology, 70*, 661–677.
- Campbell, J. D. (1986). Similarity and uniqueness: The effects of attribute type, relevance, and individual differences in self-esteem and depression. *Journal of Personality and Social Psychology, 50*, 281–294.
- Cantor, N., Mischel, W., & Schwartz, J. C. (1982). A prototype analysis of psychological situations. *Cognitive Psychology, 14*, 45–77.
- Chaplin, W. F., & Buckner, K. E. (1988). Self-ratings of personality: A naturalistic comparison of normative, ipsative, and idiothetic standards. *Journal of Personality, 56*, 509–530.
- Clement, R. W., & Krueger, J. (2000). The primacy of self-referent information in perceptions of social consensus. *British Journal of Social Psychology, 39*, 279–299.
- Clement, R. W., & Krueger, J. (2001). [Social projection among the depressed and the nondepressed: Effects of social categorization]. Unpublished raw data.

- Clement, R. W., & Krueger, J. (2002). Social categorization moderates social projection. *Journal of Experimental Social Psychology*, 38, 219–231.
- Cooley, C. H. (1902). *Human nature and the social order*. New York: Scribner.
- Dawes, R. M., McTavish, J., & Shaklee, H. (1977). Behavior, communication, and assumptions about other people's behavior in a commons dilemma situation. *Journal of Personality and Social Psychology*, 35, 1–11.
- Epley, N., & Dunning, D. (2000). Feeling "holier than thou": Are self-serving assessments produced by errors in self- or social prediction? *Journal of Personality and Social Psychology*, 79, 861–875.
- Fabrigar, L. R., & Krosnick, J. A. (1995). Attitude importance and the false consensus effect. *Personality and Social Psychology Bulletin*, 21, 468–479.
- Gordon, R. M. (1992). The simulation theory: Objections and misconceptions. *Mind & Language*, 7, 11–34.
- Greenwald, A. G. (1980). The totalitarian ego: Fabrication and revision of personal history. *American Psychologist*, 35, 603–618.
- Greenwald, A. G., Banaji, M. R., Rudman, L. A., Farnham, S. D., Nosek, B. A., & Mellott, D. S. (2002). A unified theory of implicit attitudes, stereotypes, self-esteem, and self-concept. *Psychological Review*, 109, 3–25.
- Harvey, N., & Fischer, I. (1997). Taking advice: Accepting help, improving judgment, and sharing responsibility. *Organizational Behavior and Human Decision Processes*, 70, 117–133.
- Karniol, R. (2003). Egocentrism versus protocentrism: The status of self in social prediction. *Psychological Review*, 110, 564–580.
- Kenny, D. A., & Acitelli, L. K. (2001). Accuracy and bias in the perception of the partner in a close relationship. *Journal of Personality and Social Psychology*, 80, 439–448.
- Kenny, D. A., & DePaulo, B. M. (1993). Do people know how others view them? An empirical and theoretical account. *Psychological Bulletin*, 114, 145–161.
- Kernis, M. H. (1984). Need for uniqueness, self-schemas, and thought as moderators of the false-consensus effect. *Journal of Experimental Social Psychology*, 20, 350–362.
- Klar, Y., & Giladi, E. E. (1999). Are most people happier than their peers, or are they just happy? *Personality and Social Psychology Bulletin*, 25, 585–594.
- Krueger, J. (1998a). Enhancement bias in the description of self and others. *Personality and Social Psychology Bulletin*, 24, 505–516.
- Krueger, J. (1998b). On the perception of social consensus. *Advances in Experimental Social Psychology*, 30, 163–240.
- Krueger, J. (2000). The projective perception of the social world: A building block of social comparison processes. In J. Suls & L. Wheeler (Eds.), *Handbook of social comparison: Theory and research* (pp. 323–351). New York: Kluwer Academic/Plenum Publishers.
- Krueger, J. I., Acevedo, M., & Robbins, J. M. (in press). Perceptions of similarities between self and social group: A matter of social projection or self-stereotyping? In K. Fiedler & P. Juslin (Eds.), *Adaptive cognition*. Cambridge, England: Cambridge University Press.
- Krueger, J., & Clement, R. W. (1994). The truly false consensus effect: An ineradicable and egocentric bias in social perception. *Journal of Personality and Social Psychology*, 67, 596–610.
- Krueger, J., & Clement, R. W. (1996). Inferring category characteristics from sample characteristics: Inductive reasoning and social projection. *Journal of Experimental Psychology: General*, 125, 52–68.
- Krueger, J., Ham, J. J., & Linford, K. M. (1996). Perceptions of behavioral consistency: Are people aware of the actor-observer effect? *Psychological Science*, 7, 259–264.
- Krueger, J., & Stanke, D. (2001). The role of self-referent and other-referent knowledge in perceptions of group characteristics. *Personality and Social Psychology Bulletin*, 27, 878–888.
- Krueger, J., & Zeiger, J. S. (1993). Social categorization and the truly false consensus effect. *Journal of Personality and Social Psychology*, 65, 670–680.
- Kruger, J. (1999). Lake Wobegon be gone! The "below-average effect" and the egocentric nature of comparative ability judgments. *Journal of Personality and Social Psychology*, 77, 221–232.
- Kulig, J. W. (2000). Effects of forced exposure to a hypothetical population on false consensus. *Personality and Social Psychology Bulletin*, 26, 629–636.
- Kulik, J. A., Sledge, P., & Mahler, H. I. M. (1986). Self-confirmatory attribution, egocentrism, and the perpetuation of self-beliefs. *Journal of Personality and Social Psychology*, 50, 587–594.
- McGuire, W. J., & McGuire, C. V. (1988). Content and process in the experience of self. *Advances in Experimental Social Psychology*, 21, 97–144.
- Mead, G. H. (1934). *Mind, self, and society*. Chicago: University of Chicago Press.
- Mullen, B., Atkins, J. L., Champion, D. S., Edwards, C., Hardy, D., Story, J. E., & Vanderklok, M. (1985). The false consensus effect: A meta-analysis of 115 hypothesis tests. *Journal of Experimental Social Psychology*, 21, 262–283.
- Nisbett, R., & Ross, L. (1980). *Human inference*. Englewood Cliffs, NJ: Prentice-Hall.
- Sarason, B. R., Pierce, G. R., Shearin, E. N., Sarason, I. G., Waltz, J. A., & Poppe, L. (1991). Perceived social support and working models of self and actual others. *Journal of Personality and Social Psychology*, 60, 273–287.
- Schank, R., & Abelson, R. P. (1977). *Scripts, plans, goals, and understanding*. Hillsdale, NJ: Erlbaum.
- Schul, Y., & Vinokur, A. D. (2000). Projection in person perception among spouses as a function of the similarity in their shared experiences. *Personality and Social Psychology Bulletin*, 26, 987–1001.
- Shrauger, J. S., & Schoeneman, T. J. (1979). Symbolic interactionist view of self-concept: Through the looking glass darkly. *Psychological Bulletin*, 86, 549–573.
- Yaniv, I., & Kleinberger, E. (2000). Advice taking in decision making: Egocentric discounting and reputation formation. *Organizational Behavior and Human Decision Processes*, 83, 260–281.

Received August 21, 2002

Accepted November 7, 2002 ■