Social Reference Points

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The authors performed two experiments in which subjects were asked to make similarity judgments about social concepts, varying the direction of the comparison specified by the question. Asymmetries in rated similarity were used to diagnose concepts that function as habitual reference points. In Experiment 1 subjects rated a friend as more similar to themselves than vice versa along both social and physical dimensions, suggesting that the self served as a reference point. In Experiment 2 subjects made global similarity comparisons between themselves and typical examples of various social stereotypes. Directional asymmetries were inversely related to the extent of subjects' knowledge about the stereotypes: The self acted as a reference point with respect to stereotypes with few known attributes but not with respect to those with many attributes. The relation between level of self-monitoring and asymmetry effects was weak and inconsistent across the two experiments. The results suggest that concepts serving as social reference points vary across judgment contexts in accord with general cognitive models of similarity comparisons.

Mental life is not an egalitarian domain. In general, concepts that are especially prominent, familiar, or prototypical seem to serve as reference points around which relatively ordinary concepts are organized. The influence of reference points on comparative judgments has been extensively investigated within cognitive psychology. Holyoak and Mah (1982) distinguished between *transient* reference points, which are influenced by the linguistic form of questions, and *habitual* reference points, which are determined by subjects' prior familiarity with the relevant domain. For example, in the domain of geographic comparisons, the question, "Which is closer to the Pacific Ocean, Chicago or Detroit?" establishes the west coast as a transient reference point. In contrast, the location where one lives may be habitually used as a reference point in making distance judgments. Holyoak and Mah found evidence that remembered geographic distances are subjectively "stretched" in the vicinity of either transient or habitual reference points.

Perhaps the most striking phenomenon associated with habitual reference points is found in directional similarity judgments. In questions of the form "How similar is A to B?" A and B play different roles: B serves as a referent (or transient reference point), whereas A is the subject of comparison. Suppose one of the two concepts is more of a habitual reference point (i.e., more familiar, salient, or prototypical) than the other. Several studies have demonstrated that in such cases, similarity judgments are asymmetric: The ordinary concept is seen as more similar to the habitual reference point than vice versa. For example, a nonfocal color is judged more similar to a focal color than vice versa (Rosch, 1975); a nonprominent country is judged more similar to a prominent one than vice versa (Tversky & Gati, 1978); and a less familiar campus location is judged closer in distance to a familiar one than vice versa (Sadalla, Burroughs, & Staplin, 1980). In all these cases perceived similarity is greater

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when the habitual reference point serves as referent rather than subject.

The phenomenon of asymmetric similarity judgments is theoretically important because it is inconsistent with geometric models of similarity (because distance is inherently symmetric). According to Tversky's (1977) contrast model of similarity judgments, similarity is decreased more by unique aspects of the subject concept than by unique aspects of the referent. Because habitual reference points are relatively familiar, and hence have more known attributes, they will tend to have more attributes not shared with an ordinary concept than vice versa. Accordingly, judged similarity will be less when the habitual reference point is the subject of the comparison than when it is the referent.

Reference Points in the Social Domain

In addition to its implications for general models of similarity judgments, the asymmetry phenomenon can be used to diagnose the habitual reference points within particular knowledge domains. Our primary goal in the present article is to investigate the reference-point status of concepts involved in social cognition. What social concepts might plausibly serve as habitual reference points? Perhaps the most obvious candidate is the concept of the self. The notion that the self serves to organize social knowledge can be traced to William James (1890). Hovland and Sherif's (1952) suggestion that people make relatively fine distinctions among attitudes similar to their own is closely related to the type of reference-point effects observed in symbolic comparison tasks with various cognitive stimuli, such as numerical magnitudes (Holyoak, 1978) and geographic locations (Holyoak & Mah, 1982). The view of the self as a habitual reference point is compatible with current work on the role of "self-schemas" in processing social information (Markus & Smith, 1982).

Rogers and his colleagues (1982; Rogers, Kuiper, and Kirker, 1977; Rogers, Kuiper, & Rogers, 1979) have been the strongest proponents of the view that the self plays a unique role as a habitual social reference point. According to Rogers (1982), "The self is clearly a unique cognitive structure, different in nature from those structures representing others. . . . The self may well be the largest and most rich prototype in our cognitive arsenal" (p. 203). This claim is considerably less modest than the evidence advanced in its support. For example, Rogers et al. (1977) found that incidental memory for trait adjectives was superior if the words had been assessed with respect to their accuracy as a self-description rather than with respect to their semantic meaning. However, Bower and Gilligan (1979) demonstrated that memory for trait terms can be equally enhanced by retrieving a related episode from one's own life or from the life of a salient other (one's mother), suggesting that the status of the self as an aid in encoding and retrieval is not unique.

Rogers et al. (1979) measured subjects' reaction times to decide which of two trait adjectives either "describes you best" or "describes you least." Decisions were made more quickly when the two traits were relatively unequal in their similarity to the self (as determined by a prior rating task). This "symbolic distance effect" parallels the latency patterns obtained in other domains (e.g., numerical magnitude) when subjects decide which of two comparison stimuli is more or less similar to a third (Holyoak, 1978). However, because Rogers et al. (1979) explicitly presented the self as the reference stimulus in their comparison task, this result simply indicates that the self can function as a transient reference point (much like an arbitrary referent digit in the experiments of Holyoak, 1978); their study has no direct bearing on the question of whether the self is a habitual reference point.

Nonetheless, Rogers et al. (1979) argued that their data demonstrated not only that the self is a habitual reference point but also that it has unique properties that differentiate it from other cognitive reference points. They based the latter claim on two pieces of evidence. First, they failed to find any effect of overall distance from the self to the two descriptors, whereas in other domains decisions are made more quickly when the comparison stimuli are relatively close to the referent (see Holyoak & Mah, 1982). However, as Holyoak and Gordon (in press) pointed out, methodological problems with the scaling procedure used by Rogers et al. (1979) leave this null finding uninterpretable. Second, they

found that the latency pattern did not differ across the two forms of the question ("best" vs. "least"). Although Rogers et al. claimed that this finding differed from comparable results obtained in previous studies with other stimulus domains, this is simply not the case. The latter result in fact parallel's Holyoak's (1978) finding that time to compare two digits to a reference digit is sometimes independent of whether the task is to choose the "closer" or the "further" digit. The work of Rogers et al. (1979) thus demonstrates that the self can function much like transient reference points in other domains; however, it provides no evidence that the self is a habitual reference point, far less one with unique properties.

Although there is no clear evidence that the self is habitually used as a reference point, the hypothesis remains plausible. However, other evidence suggests a more moderate view than that of Rogers (1982). Markus and her colleagues (1977; Markus & Smith, 1982) provided evidence that people define themselves with respect to certain trait dimensions but not others. Accordingly, the self may serve as a habitual reference point only with respect to dimensions represented in the individual's self-schema. In addition, individuals may differ in the extent to which they use their self-concept as a reference point rather than other social concepts such as significant role models or prominent social categories and stereotypes. A secondary goal of the present study was to make a preliminary attempt to identify such individual differences.

Overview of Experiments

The present experiments were designed to provide an initial assessment of the status of various social concepts as habitual reference points, using directional asymmetries in similarity judgments as a diagnostic tool. Experiment 1 involved comparisons of the self to a friend along various social and physical dimensions, and Experiment 2 involved judgments of global similarity between the self and several social stereotypes varying in prominence. To provide a potential measure of relevant individual differences, Snyder's (1974) Self-Monitoring Scale was administered to subjects in both experiments. This is one of several scales designed to measure some form of self-reference; although it appears that the Self-Monitoring Scale measures multiple factors (Briggs, Cheek, & Buss, 1980), scores on the scale might plausibly predict the degree to which the self serves as a habitual reference point. According to Snyder (1979), individuals low in self-monitoring tend to guide their behavior on the basis of information about relevant inner states, whereas individuals high in self-monitoring tend to guide their behavior on the basis of situational information. Snyder and Cantor (1980) obtained evidence that low self-monitoring people are relatively knowledgeable about their own traits and personal characteristics, whereas high self-monitoring people are relatively knowledgeable about individuals who prototypically exemplify various traits. Accordingly, it seemed plausible that people low in self-monitoring would be especially likely to use the self as a habitual reference point and hence produce relatively large asymmetries in similarity judgments involving the self.

Experiment 1

Subjects were asked to make directional similarity judgments about themselves versus a friend along various dimensions. If the self is a habitual reference point with respect to one's friends, then judged similarity of a friend to the self should be greater than judged similarity of the self to a friend. To determine whether any obtained asymmetries are specific to social dimensions or are more general, comparisons were made using both social/personality dimensions (e.g., shyness) and physical dimensions (e.g., weight).

Method

Subjects first completed the Self-Monitoring Scale (Snyder, 1974). They were then asked to fill out a questionnaire involving similarity assessments. The instructions first asked subjects to "think of a particular friend of the same sex as yourself, that you know very well." They were then asked to rate the similarity of themselves to the friend (or vice versa) along 10 dimensions, using a 9-point scale on which a rating of 9 indicated maximal similarity. Five of the dimensions were social/personality traits (friendliness, shyness, industriousness, leadership ability, and even temperedness) and five were physical (height, weight, hair color, physical strength, and physical agility). The 10 dimensions were randomly ordered, with social and physical dimensions intermixed.

Subjects received one of two different versions of the questionnaire, which differed only in the direction of the required similarity judgments. In one version the self was always the referent (e.g., "How similar is your friend to you in shyness?"), whereas in the other the self was always the subject (e.g., "How similar are you to your friend in shyness?").

A total of 196 University of Michigan undergraduates served as subjects, with 98 receiving each version of the similarity questionnaire. The relative frequencies of men and women were approximately equated across conditions. The subjects, who were enrolled in an introductory psychology course, were tested in groups of between 20 and 30.

Results and Discussion

Subjects were divided into three levels of self-monitoring on the basis of their scores on the Self-Monitoring Scale as follows: low, 0–10; medium, 11–15; high, 16–25. The number of subjects at each level was 34, 39, and 25, respectively. Self-monitoring level was then included as a factor (with unequal-cell frequencies) in analyses of variance performed on the similarity ratings. The other independent variables were direction of judgment (a between-subjects factor) and type of dimension, social versus physical (a within-subjects factor). Two separate analyses were performed on the data. In the more standard analysis, the data were averaged across individual dimensions of each type, and the subject factor was treated as a random effect to provide the appropriate error terms. This analysis assessed the probability that the results would generalize to a different subject sample. A second analysis was performed in which the data were averaged across subjects, and the factor of dimension (nested within type of dimension) was treated as a random effect. This analysis assessed the probability that the results would generalize to a different sample of social and physical dimensions. Minimum quasi F ratios (*min F'*) were then calculated to assess the probability that the results would simultaneously generalize to different samples of both subjects and dimensions (Clark, 1973). We report the three statistics of potential interest: F by subjects, F by dimensions, and *min F'*.

The result of central concern involves the difference between the mean similarity ratings across the two directions of judgment. Table 1 presents the mean ratings for each direction as a function of the type of dimension (physical and social). The mean rating of the similarity of a friend to the self was 6.20, and the mean rating of the similarity of the self to a friend was 5.78. This asymmetry of .42 units was highly significant across subjects, $F(1, 190) = 9.84$, $p < .01$; across dimensions, $F(1, 8) = 18.5$, $p < .01$; and across both simultaneously, *min F'* (1, 58) = 6.42, $p < .025$. The size of the asymmetry effect did not differ significantly in either analysis as a function of type of dimension. The results of Experiment 1 thus clearly indicate that the self functions as a habitual reference point in similarity comparisons with friends.

Table 1
Asymmetry in Similarity of Self and Friend for Social and Physical Dimensions (Experiment 1)

	Friend to self	Self to friend	
Dimension Type	*M*	*M*	Asymmetry
Social	6.20	5.82	.38
Physical	6.21	5.74	.47

The only other effect that approached significance in either analysis was the interaction between direction of judgment and level of self-monitoring. This effect was significant in the subject analysis, $F(2, 190) = 3.13$, $p < .05$, and in the dimension analysis, $F(2, 16) = 7.86$, $p < .01$; however, it fell short of significance when the results of the two analyses were combined, *min F'* (2, 129) = 2.23, $p > .05$. The reliability of the interaction is thus ambiguous; however, in any case, the trend was opposite to the prediction derived from previous work on self-monitoring (Snyder, 1979; Snyder & Cantor, 1980). The largest asymmetry effect was observed not for subjects with low scores on the Self-Monitoring Scale but for those with high scores. The mean differences were .22, .18, and 1.01, respectively, for people at the low, medium, and high levels of self-monitoring.[1] Experiment 2, which used stereotypes rather than

[1] We also partitioned subjects according to their scores on the three subscales of the Self-Monitoring Scale identified by Briggs, Cheek, and Buss (1980). The trend toward a relation between overall self-monitoring level and the asymmetry effect was entirely due to the Extraversion and Acting subscales and not at all to the Other-Directedness subscale.

friends as comparison terms, was in part intended to provide a further test of the hypothesis that the self functions as a reference point to a greater degree for individuals low in self-monitoring.

Experiment 2

The results of Experiment 1 indicate that the self functions as a habitual reference point with respect to friends. However, as we pointed out earlier, there are other social concepts that might also plausibly serve as reference points in certain contexts. For example, one might suppose that to some extent people define their self-concept with respect to prominent social categories or stereotypes (e.g., a typical or idealized member of one's profession). On the other hand, the self may serve as a reference point with respect to relatively unfamiliar stereotypes.

Experiment 2 was designed to assess the extent to which the self, in relation to social stereotypes, serves as a habitual reference point. Subjects made directional similarity judgments involving the self and typical examples of stereotypes. Knowledge of the stereotypes was assessed by having subjects list attributes of typical examples. Our prediction was that the extent to which the self functions as a reference point (as indexed by asymmetric similarity judgments) would be inversely related to knowledge about the stereotype with which the self is compared. As in Experiment 1, the Self-Monitoring Scale was administered to all subjects. The work of Snyder and Cantor (1980) suggested that people low in self-monitoring would have a greater tendency to use the self, rather than stereotypes, as a reference point.

Method

Subjects first completed the Self-Monitoring Scale. They were then given a similarity questionnaire, which asked them to rate how similar typical examples of each of nine social stereotypes were to themselves (or vice versa). As in Experiment 1, subjects were asked to use a 9-point scale on which a rating of 9 indicated maximal similarity.

The nine stereotypes were selected on the basis of consultations with undergraduates at the University of Michigan. All the terms referred to categories of college students, varying in the extent to which undergraduates were likely to be knowledgeable about typical examples. The stereotypes used are listed in Table 2.

The stereotypes were listed in random order on the questionnaire. Subjects received one of two versions, which differed in the direction of the comparisons. One version included questions in which the self was the referent (e.g., "How similar is the typical preppie to you?"), whereas the other included questions in which the self was the subject (e.g., "How similar are you to the typical preppie?").

After completing the similarity ratings, all subjects were asked to list attributes of the nine stereotypes (i.e., "characteristic behaviors, social activities, dress and appearance, personality traits, etc.").

A total of 128 University of Michigan undergraduates (none of whom had participated in Experiment 1) served as subjects. They were divided equally across the two directions of judgment. The subjects, drawn from an introductory psychology course, were tested in groups of about 20.

Results and Discussion

Subjects were divided into three levels of self-monitoring in the same manner as in Experiment 1. An analysis of variance with subjects as a random factor was performed on the similarity ratings. Because we were interested in the manner in which the asymmetry effect varied across the nine individual stereotypes, stereotype was treated as a fixed rather than a random factor. Accordingly, only the standard F ratios by subjects will be reported.

Collapsing over the nine stereotypes, the mean similarity of stereotypes to the self was 4.12, and the mean similarity of the self to stereotypes was 3.83. This difference of .29 units fell short of significance, $F(1, 122) = 3.21$, $p = .08$. However, because the effect of direction of judgment varied significantly across individual stereotypes, $F(8, 976) = 2.33$, $p < .02$ for the interaction, it is necessary to examine the results for the various stereotypes individually.

Table 2 presents the mean ratings, asymmetry effects, and mean number of attributes produced by subjects for each of the nine stereotypes. In scoring the number of attributes that subjects wrote, each predicate (i.e., adjective or verb phrase) was counted as one, with the exception that specific variants of a more general attribute were counted as one-half. (These exceptions, which were infrequent, consisted entirely of lists of individual items of clothing, mainly given for the stereotypes "preppie" and "jock".) The stereotypes in Table 2 are ordered according to decreasing size of the asymmetry effect (where

Table 2
Similarity Ratings, Asymmetry, and Mean Number of Attributes for the Stereotypes Used in Experiment 2

Stereotype	Stereotype to self	Self to stereotype	Asymmetry	Mean attributes
Co-op member	4.22	3.23	.99**	3.27
Vegetarian	3.27	2.38	.89*	4.52
Pre-med	4.08	3.28	.80*	4.96
Dormitory resident	6.06	5.73	.33	3.47
Business student	4.72	4.44	.28	4.47
Fraternity/sorority member	3.94	3.81	.13	5.39
Radical	3.63	3.56	.07	5.52
Jock	3.70	4.08	−.38	6.52
Preppie	3.44	3.99	−.55	6.47

* $p < .05$. ** $p < .02$.

a positive effect indicates that the stereotype was rated more similar to the self than vice versa, as would be expected if the self were the more prominent reference point). Tests of simple main effects of direction for the individual stereotypes revealed significant positive asymmetries for "co-op member," "vegetarian," and "pre-med"; nonsignificant reversals were observed for the terms "jock" and "preppie."

These large variations in the size of the asymmetry effect (ranging 1.54 units from "co-op member" to "preppie") were extremely orderly. As is apparent from the data in Table 2, the asymmetry effect tended to decrease as the number of attributes produced by subjects increased. A substantial Spearman rank-order correlation was obtained between these two variables ($r_S = -.85$, $p < .01$). This result is entirely in accord with our prediction. The self appears to function as a habitual reference point with respect to stereotypes about which little is known. However, stereotypes about which a great deal is known are at least as prominent as reference points as is the self.

The relation between the asymmetry effect and level of self-monitoring contrasted sharply with that observed in Experiment 1. In comparisons between the self and stereotypes (rather than a friend), individuals high in self-monitoring yielded the weakest asymmetry effect (mean differences of .34, .50, and −.01, respectively, for people at the low, medium, and high levels of self-monitoring). However, this trend toward an interaction between direction of judgment and level of self-monitoring fell well short of significance, $F(2, 122) = 1.05$, $p = .35$, and varied in an inconsistent manner across individual stereotypes. The work of Snyder and Cantor (1980) would also seem to suggest that number of stereotype attributes produced by subjects should increase with level of self-monitoring. A small monotonic trend in the predicted direction was in fact obtained (M of 4.76, 4.93, and 5.16, respectively, for low, medium, and high levels); however, this trend did not approach significance ($F < 1$).[2] Experiment 2 thus provided no firm evidence that the Self-Monitoring Scale measures individual differences in the use of the self as a habitual reference point.

General Discussion

The present study serves to clarify the status of various social concepts as habitual reference points. In keeping with the suggestions of various theorists, the results of Experiment 1 indicate that the self serves as a habitual reference point with respect to friends. Subjects judged a friend to be more similar to themselves than vice versa along both social and physical dimensions. However, although our results indicate that the self functions as a reference point in certain contexts, they contradict strong claims that the self is somehow unique in its position as a habitual social reference point (Rogers, 1982). The present asymmetry effects involving the self resemble

[2] These trends involving level of self-monitoring were entirely confined to the items constituting the Other-Directedness and Acting subscales (Briggs, Cheek, & Buss, 1980).

those observed previously in a variety of nonsocial domains (Rosch, 1975; Sadalla et al., 1980; Tversky & Gati, 1978). Moreover, the results of Experiment 2 indicate that the self is not unrivaled as a reference point within the social domain. Although the self seems to function as a reference point with respect to social stereotypes that have few known attributes, well-known stereotypes are at least as prominent as the self, as indexed by the magnitude of the asymmetry effect.

The present study suggests a variety of potentially important directions for further investigation of social reference points. A wider range of social concepts needs to be explored in tasks requiring judgments of similarity. Individual differences in social reference points clearly deserve additional attention. In the present study the relation between level of self-monitoring and asymmetry effects was inconsistent across experiments and statistically weak. Other measures may afford more appropriate indexes of individual differences with respect to reference-point effects. Another candidate, at least for comparisons involving trait dimensions, might be a measure of the degree to which particular traits are included in an individual's self-schema (Markus & Smith, 1982).

A particularly important research direction is to broaden the range of tasks that can be used to converge on a theoretical definition of habitual reference points, in both the social and other domains. Further research is needed to demonstrate that concepts that create asymmetries in directional similarity judgments have predictable influences on the performance of other tasks. It would be comforting to know that habitual reference points affect some form of behavior less contrived than similarity ratings. Nonetheless, directional similarity judgments appear to offer a simple and sensitive diagnostic tool for the investigation of concepts around which social knowledge is organized.

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