Judging Health Status: Effects of Perceived Prevalence and Personal Relevance

John B. Jemmott III and Peter H. Ditto
Princeton University

Robert T. Croyle
Williams College

In this article, we show that people’s evaluations of the seriousness of a health disorder are influenced by the perceived prevalence and personal relevance of that disorder. As part of a study ostensibly concerned with college students’ health characteristics, 60 undergraduates were “tested” for the presence of a fictitious enzyme deficiency. The subjects discovered either that they had the deficiency (deficiency-present subjects) or that they did not have it (deficiency-absent subjects), and were led to believe either that 1 of the 5 people in the laboratory had the deficiency (low-prevalence subjects) or that 4 of them had it (high-prevalence subjects). As predicted, the low-prevalence subjects evaluated the deficiency as more serious than did the high-prevalence subjects. In addition, consistent with the view that personal relevance affects perceptions of health disorders, the deficiency-present subjects evaluated the deficiency as less serious than did the deficiency-absent subjects. The deficiency-present subjects also derogated the validity of the test ostensibly used to diagnose the deficiency compared with other subjects. Finally, the deficiency-present subjects requested more information about the deficiency than did the deficiency-absent subjects.

Everyone at one time or another has had or has known someone with a health disorder. The mere pervasiveness of health disorders makes them interesting as a psychological phenomenon. People are constantly evaluating health disorders—both their own and those of others—to determine the importance of the disorders and the type of behavior warranted by them. The physiological roots of physical health are undeniable; but judgments about health are inherently psychological. These judgments, as such, may be subject to certain cognitive and motivational influences—a characteristic they share with myriad phenomena of interest to social psychologists.

There are obvious parallels between health disorders and negatively valenced personal attributes or stigmas (Goffman, 1963; Jones et al., 1984; Katz, 1981). People typically consider health disorders to be undesirable. The afflicted person may experience anxiety. Others react to victims of some disorders with ambivalence, avoidance, or even scorn. This is not to say that health disorders are similar in all respects to other negative attributes. Indeed the latter themselves are not entirely homogeneous (Jones et al., 1984), and health disorders, too, differ on many dimensions (D’Andrade, Quinn, Nerlove, & Romney, 1972; Linz, Penrod, Siverhus, & Leventhal, 1982). Nevertheless, there are sufficient similarities to make research on reactions to health disorders potentially informative about more traditional social psychological concerns and vice versa.

In this article, two factors that might affect judgments about a health disorder are considered: The perceived prevalence of the disorder and its personal relevance. The specific judgment examined is the evaluation of seriousness. Obviously there are other aspects of the perception of health disorders one could examine (e.g., D’Andrade et al., 1972; Linz et al., 1982). The judgment of seriousness is interesting because it captures, in a simple way, a critical part of what is on the layperson’s mind when considering a health disorder.

Little hard evidence exists on the determinants of judgments of the seriousness of a health disorder; yet such judgments are seen as important to many health-relevant behaviors, including compliance with treatment regimens, the decision to seek medical attention, and the tendency to delay before seeking such attention (Becker, 1979; Safer, Tharps, Jackson, & Leventhal, 1979; Rosenstock & Kirscht, 1979). In short, researchers typically treat seriousness judgments as independent rather than as dependent variables. There is evidence that pain, sudden disability, interference with valued activities, and novelty all characterize health disorders that are likely to prompt contact with medical professionals or with the informal lay referral network (Friedson, 1970; Safer et al., 1979; Suchman, 1965; Twaddle, 1969; Zola, 1966). But, on the issue of what affects seriousness judgments, such evidence is at best indirect.

We hypothesize that the perceived prevalence of a negative attribute such as a health disorder influences how it is evaluated, namely, that people may be biased toward interpreting a disorder as more serious to the extent that they perceive it as relatively rare. Research in social cognition supports the notion that the
prevalence of an attribute can affect its evaluation. Individuals whose social categories are relatively scarce in a setting are evaluated more extremely—more favorably or more unfavorably—than are those whose social category is less scarce (MacArthur, 1981; Taylor, Fiske, Etcoff, & Ruderman, 1978). Commodity theory also asserts that perceived prevalence influences evaluations, specifying that commodities (defined as attractive objects) have higher valuation when they are perceived as less plentiful (Brock, 1968; Fromkin & Snyder, 1980).

In the health domain, some evidence is consistent with the view that the perceived prevalence of a disorder may affect reactions to that disorder. Zola (1966) argued that the prevalence of a disorder affects decisions about seeking medical treatment. He cited examples of populations where particular medically significant disorders were widespread, yet were not seen as especially pathologic and were seldom treated medically. One interpretation of these data is that owing to the perceived high prevalence of the disorders, they were evaluated as benign and consequently treatment was not sought.

More direct evidence on the role of perceived prevalence in evaluations of health disorders is provided by Jemmott, Croyle, and Ditto (1984) who found that the lower college students estimated the prevalence of a familiar symptom or disease to be, the higher were their ratings of that disorder’s seriousness and vice versa. Although the prevalence estimates may have affected the seriousness judgments, it is possible that the reverse occurred or that some unmeasured variable influenced both kinds of judgments. The present research attempts to clarify this relation.

This research also examines whether the personal relevance of a disorder affects judgments of its seriousness. That relevance can affect people’s judgments is suggested both by studies (Chaiken, 1980; Petty & Cacioppo, 1979) demonstrating that personally relevant information is processed differently from information that is not personally relevant and by correspondent inference theory (Jones & Davis, 1965), which holds that the relevance to the perceiver of an actor’s behavior will affect evaluations of that behavior.

We hypothesize that a disorder is seen as less serious if it has high personal relevance than if it has low personal relevance. If one assumes that a disorder has greater relevance to the people who have it than to those who do not, then the hypothesis is consistent with research indicating that people are less likely to interpret a hypothetical bodily sensation as indicating disease (Campbell, 1975) and to say it is appropriate to consult a physician about it (Rosenstock & Kirscht, 1979) if those decisions concern themselves rather than others. It is also supported by research indicating that people who report having had a disorder rate it lower in seriousness than do other people (Jemmott et al., 1984).

These differential judgments may stem at least in part from defensiveness. Although some people may perceive benefits in having a disorder and some circumstances may foster such perceptions (Barsky & Klerman, 1983; Jones & Berglas, 1978; Visotsky, Hamburg, Goss, & Lebovitz, 1961), for most people most of the time, the perception that one has, may have, or is susceptible to a health disorder arouses anxiety. It threatens self-image, including self-perceptions of invulnerability, and one’s customary life style (Cohen & Lazarus, 1979; Weinstein, 1982). To cope with anxiety-provoking health threats, people often deny having their diagnosed disorder or downplay its probable consequences (Cohen & Lazarus, 1979; Janis, 1958; Kuhler-Ross, 1969; Katz, Weiner, Gallagher, & Hellman, 1970; Visotsky et al., 1961). That a disorder need not be extremely serious to prompt denial-like responses is suggested by Campbell’s (1975) finding of such responses among subjects judging rather mild disorders. More generally, social psychologists have reported defensiveness phenomena in a variety of contexts where individuals are threatened by negative feedback (Burger, 1981; Zuckerman, 1979).

The present research brings a novel approach to the study of subjective judgments of health disorders: the experimental design. A fictitious disorder was created for use in the experiment. It was ostensibly a deficiency in a recently discovered enzyme that affects pancreatic functioning. For half of the subjects the enzyme deficiency had relatively high personal relevance: They were led to believe they had the enzyme deficiency (deficiency-present subjects). For the others, the deficiency had relatively low personal relevance: They were led to believe they did not have it (deficiency-absent subjects). The advantages of an experimental design over case study or correlational designs are numerous. However, the possible negative consequences for the subjects were also recognized, and precautions were taken throughout the experiment to minimize them.

In devising the prevalence manipulation, we assumed that laypersons’ perceptions of the prevalence of a disorder are probably more often influenced by the number of people they encounter or hear about who have that disorder than by numerically summarized prevalence statistics. In addition, following social evaluation theories, we assumed that the effect of prevalence information would be greatest if it concerned people similar to the perceiver (Festinger, 1954; Kelley, 1968; Sanders, 1982). Accordingly, we manipulated perceptions of prevalence by varying the number of fellow students present in the laboratory who apparently had the deficiency. Half the subjects were led to believe that 1 of the 5 people in the laboratory had the deficiency (low-prevalence subjects); half were led to believe that 4 of the 5 had it (high-prevalence subjects).

In summary, we predicted that the subjects in the low-prevalence condition would give higher ratings of the seriousness of the deficiency than would those in the high-prevalence condition. We also predicted that the subjects in the deficiency-present condition, those for whom the deficiency had great personal relevance, would rate the deficiency as less serious than would those in the deficiency-absent condition, for whom it had relatively little personal relevance.

Method

Subjects

The subjects were 64 undergraduates who volunteered for a study of the health characteristics of college students. The results from 4 subjects were discarded after their participation, 2 because they voiced suspicions about the experimental manipulations and 2 because they misinterpreted the deficiency-present versus absent manipulation. The final sample, therefore, consists of 60 subjects, 37 men and 23 women.

Procedure

The subjects were initially contacted by phone and discreetly administered a hypochondriasis scale (Pilowsky, 1967). Those scoring 2 or more standard deviations above the normal mean were excluded, and, because
of the use of glucose in the procedure, so were diabetics and hypoglycemics. The subjects were told the study was jointly sponsored by the psychology department and the “Health Awareness Project (HAP),” ostensibly a federally funded health organization attempting to gauge the health characteristics of undergraduates and to increase their awareness of health-related issues. The experiment was conducted in a laboratory replete with medical trappings—health posters, stethoscopes, eye charts, and the like—and the subjects were met by a male experimenter wearing a white lab coat.

The subjects were told that they would complete health questionnaires and undergo several medical tests, some standard, like blood pressure, eyesight, and hearing tests, and some very recently developed, like the Thioamine Acetylase (TAA) Saliva Reaction Test and the Auditory Reaction Time Test. The experimenter measured the subjects’ blood pressures and pulse rates, veridically reported them to the subjects, and then ushered each subject into one of five soundproof booths, where a computer-assisted hearing test was to be administered. Two or 3 subjects were run at a time, but they were led to believe 5 subjects were present in the booths. With the subjects in their booths, the experimenter explained over an audio system that due to a microcomputer problem the hearing test would be delayed, that they should start completing the Cornell Medical Index (a lengthy questionnaire; Brodman, Erdmann, & Wolff, 1949), and that he would contact them when the hearing test was ready. He then individually contacted each subject over the audio system while leading him or her to believe that they all were being addressed. In this way, the subjects were individually randomly assigned to conditions. He stated that the malfunction was taking longer to repair than he had anticipated and that they would therefore proceed to the TAA Saliva Reaction Test. The test was described in a booklet, which the experimenter told the subjects to read while he read it to them over the audio system.

The booklet indicated that Thioamine Acetylase or TAA is an enzyme that is active in pancreatic functioning and that some people have the enzyme but others do not. It indicated that researchers have recently discovered that people who lack TAA seem to be relatively susceptible to a complex of mild but irritating pancreatic disorders. If TAA is present in the body, the booklet stated, it can be detected in saliva with a chemically coated paper that was developed 18 months ago. Reference was then made to the similarity of the TAA Saliva Reaction Test to the Phenylthiocarbamide (PTC; Stedman, 1972) taste test. At this point, personal relevance was manipulated.

**Manipulating Personal Relevance**

The high personal relevance subjects, those randomly assigned to the deficiency-present conditions, were told that the yellow TAA test paper would turn green if placed in contact with saliva that does not contain TAA. The low personal relevance subjects, those in the deficiency-absent conditions, were told that the paper would turn green if placed in contact with saliva that contains TAA. The experimenter then told the subjects how to self-administer the test. They were told to rinse their mouths with a cup of mouthwash, purportedly to help generate saliva and to remove any food residue that might contaminate the test. They were told next to place a small amount of saliva in a cup and then to take out a TAA test strip and rub it in the saliva so that both sides were uniformly moistened but the end of the strip held between fingers was dry. They were told to wait 30 s for color development to be completed. In fact, the strip always turned green because, unknown to the subjects, it was glucose-sensitive paper and a small amount of glucose had been added to the mouthwash. Thus, all subjects saw the color reaction, but, depending on the condition to which they had been randomly assigned, interpreted it differently.

**Manipulating the Prevalence of the Deficiency**

At this point, the perceived prevalence of the deficiency was manipulated. The experimenter stated that he needed a tally of the number of subjects who actually had TAA deficiency and told them to flip on their indicator lights if the test indicated they had the deficiency. If the subject was in the low-prevalence condition, the experimenter said the lights indicated that only 1 out of the 5 of them had the deficiency. If the subject was in the high-prevalence condition, he said the lights indicated that 4 of the 5 had the deficiency. Fifteen subjects were randomly assigned to each of the four conditions formed by crossing personal relevance and prevalence of deficiency.

**Dependent Measures**

**Prevalence and seriousness.** The subjects next completed a questionnaire concerning 15 symptoms and illnesses, one of which was TAA deficiency. It contained the following questions: (a) Have you ever heard of this disorder? (b) Have you ever had this disorder? (c) What is your estimate of the percentage of the college-age population that has had this disorder? (d) How serious a threat to health is this disorder? They answered this last question on a scale from not serious (0) to very serious (100). The questionnaire included a few rather obscure disorders so that inclusion of TAA deficiency would not seem unusual. The other disorders were laryngitis, hypoglycemia, migraine headache, systemic lupus erythematosus, bronchitis, hypertension, anemia, ulcers, mononucleosis, astigmatism, hemorrhoids, skin cancer, asthma, and conjunctivitis.

**Information seeking.** The subjects then completed the HAP Services Form, which assessed their interest in additional information about TAA deficiency. Services were listed concerning several disorders, including TAA deficiency, and the subjects were asked to indicate the ones they desired.

**Diagnostic test accuracy.** The subjects next took the Quick Health Quiz, which included, among filler questions, a scale for them to rate the accuracy of the TAA Saliva Test from very inaccurate (1) to very accurate (9).

**Debriefing**

The subjects were then ushered out of the booths and put through a careful process debriefing (Ross, Lepper, & Hubbard, 1975). They were told that TAA did not exist, that the saliva test had been engineered so that the test strip always turned green, that the test had no bearing on their susceptibility to pancreatic disorders, and that the interpretation they had been given depended only on the experimental condition to which they had been randomly assigned. They were shown the table of random numbers used to assign them to conditions and heard the reactions of other subjects assigned to different conditions. The reasons for the deception were explained, any remaining questions the subjects had were sensitively answered, and they were paid for their participation. The subjects revealed little if any evidence of distress about the procedures during the debriefing.

**Results**

Prevalence (low, high) × Deficiency (present, absent) × Sex-of-Subject (male, female) analyses of variance (ANOVA) revealed no sex-of-subject main effects or interactions on any dependent variable; accordingly, this factor will not be discussed. The prevalence manipulation was successful. The subjects in the high-

---

1 Three potential subjects were excluded because they scored very high on hypochondriasis and one was excluded because he was a diabetic. One disadvantage of the systematic exclusion of subjects scoring high in hypochondriasis should be noted: It may lead to an underestimation of the size of the experimental effects.
prevalence conditions ($M = 52.33, SD = 20.07$) estimated that a greater percentage of the college-age population has TAA deficiency than did those in the low-prevalence conditions ($M = 19.87, SD = 13.85$), $F(1, 52) = 50.29, p < .0001$. There were no other significant effects on prevalence estimates.

**Prevalence and Perceived Seriousness**

As predicted, the subjects in the low-prevalence conditions ($M = 37.00, SD = 18.22$) rated TAA deficiency as more serious than did those in the high-prevalence conditions ($M = 29.33, SD = 17.00$), $F(1, 52) = 3.77, p < .058$. The Prevalence $\times$ Deficiency interaction was not significant. The correlation between subjects’ estimates of the percentage of the college-age population that has TAA deficiency and their ratings of the seriousness of the deficiency provides additional evidence supporting the hypothesis. It is negative and significant, $r(58) = -.39, p < .002$, indicating that the lower a subject’s estimate of the prevalence of TAA deficiency, the higher is his or her rating of its seriousness. The data from the other 14 health disorders on the H questionnaire also support the view that the lower the perceived prevalence of a disorder, the more serious it is perceived to be. All 14 correlations are negative, and 6 are significant ($ps < .05$, one-tailed).

A Fisher Z transformation (Cohen & Cohen, 1975) was applied to the correlation coefficients, and the mean was calculated. It was negative ($-.23$) and significantly different from 0, $t(13) = 5.56, p < .0001$.

**Personal Relevance and Perceived Seriousness**

It was also hypothesized that subjects to whom TAA deficiency was highly personally relevant would evaluate it as less serious than would the other subjects. This prediction is supported, $F(1, 52) = 9.98, p < .003$. The deficiency-present subjects ($M = 25.67, SD = 18.13$) rated the deficiency as less serious than did the deficiency-absent subjects ($M = 40.67, SD = 14.37$).

**Diagnostic Test Accuracy**

We were concerned that the subjects in the high-prevalence conditions, where the TAA Saliva Reaction Test indicated that 4 of the 5 people had the deficiency, might doubt the test’s validity. Instead we found that, though the difference is statistically nonsignificant, $F(1, 52) = 1.12$, the mean rated accuracy of the test actually is slightly higher in the high-prevalence conditions ($M = 7.53$) than in the low-prevalence conditions ($M = 7.13$). The Prevalence $\times$ Deficiency interaction was not significant.

Interestingly, high personal relevance occasioned lower estimates of the accuracy of the diagnostic test: The deficiency-present subjects ($M = 7.03$) rated the test’s accuracy as lower than did the deficiency-absent subjects ($M = 7.63$), $F(1, 52) = 3.55, p < .06$. Inspection of the means in Table 1 provides evidence of defensiveness. The test-derogation effect is especially pronounced in the low-prevalence, deficiency-present cell. Its mean is significantly lower than the others, $F(1, 52) = 5.56, p < .03$. This is precisely the condition where anxiety about having the deficiency should be greatest and where therefore the desire to deny having the disorder should be strongest.

<table>
<thead>
<tr>
<th>Table 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean Ratings of the Accuracy of the TAA Saliva Reaction Test</strong></td>
</tr>
<tr>
<td><strong>by Deficiency Presence and Prevalence</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Deficiency presence</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deficiency-Present</strong></td>
<td>6.60</td>
<td>7.46</td>
</tr>
<tr>
<td>$M$</td>
<td>7.66</td>
<td>7.60</td>
</tr>
<tr>
<td>$SD$</td>
<td>.90</td>
<td>.91</td>
</tr>
</tbody>
</table>

**Note:** Higher numbers indicate greater accuracy.

**Information Seeking**

Seeking information is one way of actively coping with a health threat (Cohen & Lazarus, 1979). It was widely used by the subjects in the deficiency-present condition, where 83% requested at least one HAP informational service concerning TAA and where such requests were independent of ratings of diagnostic test accuracy and TAA seriousness. ANOVA reveals that the deficiency-present subjects ($M = 1.53, SD = 1.07$) requested a greater number of such services than did the deficiency-absent subjects ($M = .23, SD = .50$), $F(1, 52) = 20.58, p < .0001$. No other effects were significant.

**Discussion**

The results indicate that perceptions of the prevalence of a health disorder influence judgments of its seriousness. The subjects who thought only 1 of the 5 people in their lab session had TAA deficiency gave higher ratings of the deficiency’s seriousness than did those who thought 4 of them had the deficiency. To the subjects in this experiment, TAA deficiency was a novel disorder—indeed it is bogus—yet the results concerning perceptions

---

2 Why the mean prevalence estimate of the high-prevalence subjects (52.33%) substantially deviates from the sample prevalence (80%), whereas the mean estimate of the low-prevalence subjects (19.87%) is virtually identical to the sample prevalence (20%) is unclear. One possible explanation is the operation of the representativeness heuristic (Kahneman & Tversky, 1972). The sample prevalence of 20% may have seemed more reasonable as reflecting a population prevalence than did the sample prevalence of 80%. Indeed, the median prevalence estimate the subjects gave for the other 14 diseases ranged from 5% to 40% with a median of 18%. Thus a sample-based estimate of 80% probably seemed unrepresentative, and the subjects probably questioned its reliability and adjusted their population estimates downward.

3 The within-cell correlations, which are strongest among deficiency-present subjects, are as follows: deficiency present, low prevalence, $r = -.53, p < .04$; deficiency present, high prevalence, $r = -.39, p < .15$; deficiency absent, low prevalence, $r = -.20, ns$; and deficiency absent, high prevalence, $r = -.02, ns$.

4 The sample was too small to obtain a reliable test of the relation of having a disorder to ratings of its seriousness for the 14 other diseases and symptoms. Too few subjects reported having had the disorders.
of prevalence and seriousness mirror those in Jemmott et al. (1984), a correlational study on judgments of familiar health disorders.

It might be asserted that the subjects in the high-prevalence condition rated the disorder’s seriousness as lower, not simply because of the prevalence of the deficiency, but also because of its unfamiliarity. In this view, the high-prevalence subjects might have reasoned that one usually hears about health disorders that are serious and widespread but not about those that are benign and widespread; hence, because they had not heard of TAA deficiency, it must not be serious. That these subjects actually reasoned in this manner, however, is unlikely because all the subjects were told that the problematic nature of TAA deficiency had been only recently discovered. This was stressed in both the experimenter’s initial introduction of the study and the booklet for the TAA Saliva Reaction Test and provided an adequate and salient explanation for their lack of prior knowledge of TAA deficiency.

Zola (1966) argued that laypersons’ perceptions of the prevalence of a disorder influence whether they seek medical attention concerning it, that those who believe that a disorder is common are unlikely to seek such attention. In the present study, low- and high-prevalence subjects in the deficiency-present condition did not differ in interest in additional information about TAA deficiency. This may have occurred because the subjects perceived the enzyme deficiency as untreatable. If they did, additional information would serve only to exacerbate anxiety about having it (cf. Leventhal, 1970; Rogers, 1983) and therefore may have been avoided in the low prevalence condition where the deficiency was seen as particularly serious.5

The deficiency-present subjects, those to whom TAA deficiency had great personal relevance, rated the deficiency lower in seriousness than did the deficiency-absent subjects. Consistent with a defensiveness explanation of this effect are the results concerning ratings of the accuracy of the test used to diagnose TAA deficiency. The deficiency-present subjects judged the test to be less accurate than did the deficiency-absent subjects. Considerable research suggests that denial is a common initial reaction when a person is confronted with a health threat (Breznitz, 1983). The deficiency-present subjects, by derogating the validity of the diagnostic test relative to other subjects, may have buttressed hopes that they did not lack the enzyme after all. The defensiveness explanation is further supported by the fact that this test-derogation effect was particularly pronounced in the condition where the subjects should have been the most anxious about the test’s results: the deficiency-present, low-prevalence condition. A serendipitous and more anecdotal finding also suggests that the deficiency-present subjects resisted the diagnosis of TAA deficiency. Only two subjects misinterpreted the deficiency-present versus deficiency-absent manipulation; both had been assigned to the deficiency-present condition. Their misinterpretation of the test’s result, in effect, permitted them to deny having the enzyme deficiency.6

An intriguing question raised by our findings is why a health disorder is judged as more serious if it is perceived to be relatively low in prevalence. It may occur because people reason that serious prevalent disorders are precisely the ones that medical science seeks to eradicate, which decreases the probability that a prevalent disorder is serious.

Another possibility is that through their experiences with disorders people come to perceive an illusory correlation between illness prevalence and seriousness as a result of paired distinctiveness. An illusory correlation (Chapman, 1967) is the perception of a relation between two classes of events that is greater than warranted by the facts. Chapman (1967) found that experience with word pairs led subjects to overestimate the number of times distinctive (i.e., longer) words were paired. Later, Hamilton and Gifford (1976) found that exposure to descriptions of the behavior of members of different groups led to an overestimation of the number of times the distinctive (i.e., less frequent) behavior occurred among members of the distinctive (i.e., smaller) group. By definition, low-prevalence disorders are distinctive; they occur relatively infrequently. Very serious disorders, too, are distinctive by virtue of their above average seriousness. Experience with disorders varying in prevalence and seriousness might lead to an illusory correlation, an overestimation of the number of disorders that are both serious and low in prevalence. Furthermore, the perceived correlation might be reinforced by media attention to rare serious disorders instead of rare benign disorders (Combs & Slovic, 1979).

It is also possible, of course, that the subjects accurately perceived a true relation between the seriousness and prevalence of disorders. This account is not incompatible with the others. It should be emphasized, however, that the possible existence of a true relation does not alter the fact that two individuals who have the identical health disorder can arrive at substantially different judgments of that disorder simply because of their different beliefs about its prevalence.

The results of the present experiment may have implications for research on evaluations of personal characteristics more generally. Stigma researchers, for instance, might do well to investigate how a stigma is perceived by stigmatized individuals. Such individuals may hold a more benign view of their stigma than other people. In addition, stigmatized individuals may evaluate their stigma as more negative if they believe it is scarce than if they believe it is highly prevalent. Finally, when viewed in light of the commodity theory maxim that positively evaluated objects increase in valuation according to their scarcity, the present results suggest the existence of a more general rarity-evaluative-

5 In fact, unpublished data (Ditto & Jemmott, 1984) supports this explanation. In a study using the TAA deficiency paradigm deficiency-present, low-prevalence subjects were significantly (p < .02) more likely to request a booklet entitled “TAA Deficiency: It Really Can Be Treated” than were deficiency-present, high-prevalence subjects.

6 One might argue that the deficiency-present subjects minimized the seriousness of TAA deficiency and the accuracy of the diagnostic test because they were unable to recall having symptoms consistent with the diagnosis. However, this explanation would not predict that the deficiency-present, low-prevalence group would rate the test’s accuracy lower than would the other groups. Second, none of the information the subjects received about TAA indicated that recent health experience was pertinent. In fact, they were told the deficiency might affect their future health, that it might increase the likelihood of their developing pancreatic disorders. Third, other research suggests that even if the deficiency-present subjects took their recent health into account, they probably found symptom evidence to confirm rather than refute the diagnosis of TAA deficiency (Croytle & Sande, 1985; Leventhal, Meyer, & Nerenz, 1980; Leventhal, Nerenz, & Steele, 1984).
extremity bias such that rare characteristics, whether negative or positive, are evaluated extremely (Jemmott & Ditto, 1984). Just as an undesirable characteristic, such as a health disorder, is seen as less desirable if its prevalence is perceived to be low, a desirable characteristic may be seen as even more desirable if its prevalence is perceived to be low. This view is consistent with a common theme in social psychology expressed in the notion of a “big frog in a small pond” and in social evaluation theories, including social comparison theory (Davis, 1966; Festinger, 1954; Pettigrew, 1967). The basic idea is that self evaluations involve not only objective assessments of the self, but also comparative assessments of the self in relation to others. What is emphasized in this article is the prevalence of a characteristic among those comparison others.

In conclusion, the present research suggests that people who perceive that a disorder has a relatively low prevalence evaluate that disorder as more serious. In addition, those for whom a disorder has relatively great personal relevance judge it to be less serious, and this seems due to defensiveness. More generally, this research also suggests that concepts and methods from experimental social psychology can be fruitfully applied to the study of health-related judgments.

References

Received February 21, 1985
Revision received November 27, 1985

Low Publication Prices for APA Members and Affiliates
 Keeping You Up-to-Date
All APA members (Fellows, Members, and Associates) receive — as part of their annual dues — subscriptions to the American Psychologist, the APA Monitor, and Psychology Today.

High School Teacher and Student Affiliates receive subscriptions to the APA Monitor and Psychology Today, and they can subscribe to the American Psychologist at a significantly reduced rate.

In addition, all members and affiliates are eligible for savings of up to 50% on other APA journals, as well as significant discounts on subscriptions from cooperating societies and publishers (e.g., the British Psychological Society, the American Sociological Association, and Human Sciences Press).

Essential Resources
APA members and affiliates receive special rates for purchases of APA books, including the Publication Manual of the APA, the Master Lectures, and APA’s Guide to Research Support.

Other Benefits of Membership
Membership in APA also provides eligibility for low-cost insurance plans covering life; medical and income protection; hospital indemnity; accident and travel; Keogh retirement; office overhead; and student/school, professional, and liability.

For more information, write to American Psychological Association, Membership Records, 1200 Seventeenth Street NW, Washington, DC 20036