A prototype is a theoretical standard against which real people can be evaluated. To derive a prototype of a lonely person, 40 students were asked to describe a lonely person whom they knew. All descriptions were studied by judges who formed a final listing and frequency of all identified features. The 18 features which formed the prototype fell into three categories: feelings of isolation, actions resulting in isolation, and paranoid feelings. The UCLA Loneliness Scale was administered to college students who were then identified as lonely or non-lonely. Previous research on interpersonal problems reported by persons seeking psychotherapy provided a list of problems which subjects card-sorted as familiar or unfamiliar problems. The socializing cluster of problems differentiated between lonely and non-lonely persons. The lonely person prototype also indicated that lonely persons lacked the social skills necessary for making friends. Questionnaire responses of lonely and non-lonely subjects revealed that lonely subjects explained interpersonal failure by a lack of ability. Lonely subjects also scored poorly on a test of interpersonal competence. The findings suggest that lonely persons' self-evaluations of their poor social skills are accurate. (Author/NRB)
THE PROTOTYPE AS A CONCEPTUAL DEVICE FOR DESCRIBING LONELINESS

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The Prototype As a Conceptual Device for Describing Loneliness

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I would like to describe some research about loneliness that is based on the concept of a prototype. We have used the prototype to describe traits, symptoms, and other terms of personality and abnormal psychology. A prototype is a kind of theoretical standard or theoretical ideal against which real people can be evaluated; it shows the major features of lonely people. In this talk, I would like to explain our approach and describe some implications.

The concept of a prototype has been developed in the literature of cognitive psychology, especially by Eleanor Rosch, as a way of contrasting between an ill-defined category and a well-defined category. While some categories can be defined precisely in terms of necessary and sufficient criteria, many categories cannot be defined so precisely. The category "chairs," for example, is an ill-defined category. Objects that we call "chairs" share many properties with each other: Some chairs are alike in being wooden, others are alike in having padding, still others are alike in having four legs. But these characteristics are neither necessary nor sufficient; there is no essential characteristic that all chairs possess. Still, we could list all of the most common characteristics that people think of when they describe a chair, and if we formed a composite of these characteristics, the composite would describe an idealized chair, the prototype of a chair. No actual chair would have all of these features, and very few of these features would apply to all chairs. However, in
practice, some chairs would have more of these features than others, and a chair with a large number of features would generally be a good example of the category. Thus, a kitchen chair (which has many features) is a good example of the category, while a beanbag chair, which has fewer features, is a poorer example.

We have used this approach to derive the prototype of "a lonely person," "a depressed person," "an aggressive child," and others. As my first step, I would like to describe our general method for deriving a prototype—in particular, the prototype of a lonely person.

1. Deriving the Prototype of a Lonely Person

In order to derive the prototype of a lonely person, we asked 40 students to think of someone they knew who was really lonely—the best example they could think of, of a person that they knew to be lonely. They were asked to describe the person in detail—to write down the person's most usual feelings, thoughts, and behaviors. They were encouraged to be as specific as they could, and they spent about half an hour describing the person that they thought of.

Then each subject's description was typed and shown to three judges. Each judge worked independently, tabulating every feature. Then the judges met to discuss the features they had identified and their final consensus was recorded to form a final listing and frequency of all the different features that were identified. Features that had been mentioned by 20% of the subjects or more were taken to form the final prototype. There were 18 features that met this criterion. They are shown on the handout. The most common features were feelings, particularly interpersonal feelings, feels rejected, feels angry, feels inferior to others, feels isolated.
In order to determine how these features are organized, we also used a clustering procedure to group them into semantic clusters. When two features on the handout are enclosed in a small inside rectangle, they were tightly clustered. The larger the rectangle, the looser the cluster. Features that are not in a common rectangle did not cluster together at all. Thus, the picture on the handout organizes the features and shows the cognitive structure of the concept of a lonely person.

We assume that the phrase "a lonely person" activates a cognitive structure of this type in the mind of a listener.

The structure on the handout shows that the major features of a lonely person fall into three major groups. The largest cluster describes thoughts and feelings of being separate from other people, isolated, different. A second set includes features that refer to actions on the person's part that bring about this result—avoiding social contacts, isolating self from others. A third set includes paranoid feelings, such as feeling angry and depressed. It can be noted that most of the ingredient features of the lonely prototype are highly interpersonal. This suggests that, in contrast to, say, depressed people, lonely people have problems that are extremely interpersonal.

Relation between Loneliness and Depression

We also used this approach to derive the prototype of a depressed person for comparison. The depressed prototype had many more features than the lonely prototype. Whereas the lonely prototype contained 18 features, the depressed prototype contained nearly 40 features. Also, the prototype of a depressed person seems to be a broader, more variegated concept; it
includes impersonal, as well as interpersonal, features—feels unenergetic, feels pessimistic, eats too much, as well as interpersonal features like avoids social contacts, feels inferior.

The 18 features of the lonely prototype, for the most part, also appeared in the depressed prototype; in other words, the lonely prototype seems to be nested within the depressed prototype. Apparently, there are different forms of depression, and the lonely form is just one of the forms.

Therefore, lonely people as a group would seem to be a more homogeneous group than depressed people. Apparently, lonely is a term with a narrower, more specific meaning than depressed.

Now let us turn to details of the lonely prototype. If we examine the largest cluster of features, there are two features in it that seem to describe the person's basic interpersonal problem. One feature is the thought "I want a friend," and the other is the thought "I don't know how to make friends."

Related Interpersonal Problems

A problem in making friends is part of a cluster of common interpersonal problems that I would like to describe. In a previous study, we examined the range of interpersonal problems that people report when they seek psychotherapy. We studied intake interviews of psychiatric patients and identified problems that patients mentioned spontaneously, problems that begin "I find it hard to . . . " or "I can't do such and such." We used various scaling procedures to identify the major clusters of problems. Some of the clusters we found are illustrated in Table 2 of the handout.
in being aggressive. One cluster in particular described difficulties in socializing. This socializing cluster contained 13 problems shown in Table 3 on the handout—problems making friends, participating in groups, having fun at a party, and so on.

In a large normative sample, we found that the problems within a cluster do correlate with one another. Problems over socializing, for example, are correlated: if a person has difficulty making friends, the probability is higher that the person also has difficulty participating in groups.

Now since the prototype of a lonely person explicitly mentions a problem in making friends, the other interpersonal problems of the socializing cluster should also characterize lonely people. That is, we would expect lonely people to have difficulty, not only in making friends, but also participating in groups, having fun at parties, relaxing on a date, calling people on the telephone, and so on.

To test this hypothesis, we administered the UCLA Loneliness Scale to Stanford students and identified people at the extremes—people who described themselves as lonely and people who described themselves as nonlonely. We then prepared a deck of cards containing the different interpersonal problems that we had identified and asked subjects to sort the problems by the Q method into 9 categories. Category 1 meant that the problem was not familiar to the subject, and Category 9 meant that the problem was very familiar.

We then determined whether any cluster of problems differentiated between lonely and nonlonely people. The socializing cluster was the only
cluster that did. Table 3 shows the probability that a given problem was placed in the highest category. It also shows, for each problem, the mean category into which the problem was placed. Each problem of the socializing cluster was placed in a higher category by lonely people than by nonlonely people.

Meaning of "I find it hard to"

Many interpersonal problems, like those in Table 3, begin with the phrase "I can't" or "I find it hard to." The meaning of this phrase, though, is ambiguous. At times, "I can't" refers to a lack of skill or a lack of competence; it really means "I don't know how to." When a person says "I can't swim," the person is talking about a lack of ability, a lack of competence.

At other times, "I can't" refers, not to a lack of skill but to an inhibition. "I can't," for example, could have the meaning "I can't bring myself to." If lonely people were really afraid of the burdens or consequences of a friendship, or if they were afraid of closeness with others, then that meaning might apply.

Therefore, before we can formulate a treatment, we need to understand what lonely people mean by the complaint "I find it hard to make friends." If the lonely person lacks a skill, then an appropriate treatment should train the person in the skill. But if the problem reflects an inhibition, then the treatment should clarify the conflict and help free the person from it.

The prototype suggests a lack of skill rather than an inhibition since one of the prototypic features was the thought "I don't know how to make friends." If lonely people think of themselves as lacking skill,
then certain consequences should follow. First, their own explanation of what goes wrong should mention this lack of skill or lack of ability. In the language of attributional theories, the attributional style of lonely people should draw particularly upon ability attributions to explain failures at socializing.

We therefore asked whether lonely people explain their interpersonal failures in terms of a lack of ability? We prepared a questionnaire containing everyday situations, like attending a party or working on a crossword puzzle. Half the situations were interpersonal (attending a party and half were not (working on a crossword puzzle). Half described a situation that ended in success, and half described a situation that ended in failure. For each situation, the subject was offered a set of reasons that might explain the outcome, and the subject had to select the reason that best explained the outcome. For example, one situation was: "You just attended a party for new students, and you failed to make any new friends." One reason offered was this one, an ability attribution: "I am not good at meeting people at parties." Another reason offered was an effort attribution: "I did not try very hard to meet new people." The subjects imagined themselves in each situation and selected that reason out of the 6 that best explained why that situation had turned out as it did. Our results showed that lonely subjects selected the ability attribution far more often than nonlonely people when they needed to explain interpersonal failures. Interpersonal failures were ascribed to a lack of ability. Their explanation of non-interpersonal failures, however, were just like that of nonlonely subjects.
These results suggest that "I can't" (make friends, participate in groups) for lonely people does refer to a lack of ability in interpersonal situations. Lonely people believe that they are interpersonally less competent, and they seem to ascribe interpersonal failure to a social skills deficit.

**Assessing Competence**

But now the question arises as to whether their attribution is valid. Are lonely people less able, less competent, less skillful in social situations? Do they in fact lack interpersonal know-how the way a non-swimmer does not know how to swim?

To test for interpersonal know-how, we needed a simple test of interpersonal competence. Many tests of interpersonal ability could arouse anxiety, and a poor performance could arise, not from a lack of ability, but from the interfering effects of anxiety. We needed a test that was relatively impersonal and nonthreatening, a task that the subject could approach in a relatively leisurely and nondefensive way, one that would test the limits of the subject's know-how rather than assess performance under stress.

The task we selected was one developed by Platt and Spivack. It requires a subject to consider and solve hypothetical interpersonal problems. In one situation, for example, a person, "C," has just moved into a new neighborhood and wants to have friends and feel at home in the neighborhood. The problem is to find a means by which C might go about making friends. The task is interesting, impersonal, and non-threatening. Subjects are under no time pressure; they are not required to enact the behavior itself. They are free to think about each situation, and in a
leisurely way, to write a possible solution. Their responses are then scored for the number and quality of methods that the subject has generated.

If lonely people do lack interpersonal skill or ability, they should perform more poorly, even on this benign pencil and paper task.

Our results showed that lonely subjects consistently performed poorly on this task. On each of the 10 items, the lonely subjects produced fewer means for solving the problem, and their overall number of solutions was significantly lower. The overall quality of the responses they produced was also lower. Furthermore, they more often produced responses that were unrealistic, and they more often failed to produce any means at all for solving an interpersonal problem.

These results suggest that lonely people are less able to think of ways of solving the problems posed by interpersonal situations. As the prototype suggests, they do seem to lack interpersonal know-how, thereby validating their own self-description and attributional style.

Comment

To summarize our progress, then, we have derived the prototype of a lonely person and followed research leads that the prototype has suggested. At times, our work has focused on specific features as a way of clarifying the lonely person’s struggle. The prototypic thought "I don’t know how to make friends," for example, has led us to study the lonely person’s attributional style and to test for a possible skill deficit. A prototype, therefore, can provide us with educated hunches and leads towards understanding what people mean when they say "I feel lonely." In future work, we hope to examine possible interventions for helping the person overcome the problem.
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1. The Prototype of a Lonely Person

- Feels separate from others, different.
- Feels isolated.
- Feels excluded from activities, not part of a group.
- Thinks "I am different from everybody else."
- Thinks "I don't fit in; I am alienated from others."
- Feels unloved, not cared for.
- Thinks "Other people don't like me."
- Thinks "I want a friend."
- Thinks "I don't know how to make friends."
- Feels inferior, worthless, inadequate.
- Thinks "Something is wrong with me; I am inferior."
- Feels paranoid.
- Feels angry.
- Feels depressed.
- Feels sad, unhappy.
- Avoids social contacts; isolates self from others.
- Works (or studies) hard and for long hours.
- Is quiet, reserved, introspective.

Strength of Cluster

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