

## Hermeneutics of Personality Description

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Theories concerning the interpretation of human action call attention to the importance of context in assigning meaning to any given action. Yet, most researchers of personality use measures that are taken out of context. As a result, interpretations of findings are without apparent constraint. To explore these and related arguments, we focused on the Rotter internal-external (I-E) scale. We found that sophisticated language users could demonstrate how responses on any item of the scale could plausibly be used as indicators of virtually any common trait term within the English language. Multiple items could be viewed as an indicator of the same trait, or multiple traits could be plausibly explained as the source of the same I-E response. Furthermore, identical traits (other than I-E) could be linked to opposing items, and logically opposing traits could both be understood as giving rise to the same I-E response. These and additional findings suggest that interpretations of personality research data may depend primarily on social processes within the science. Further implications are examined.

Personality psychologists share a focal interest in the internal mechanisms, processes, or dispositions believed to govern human behavior. As many contend, one of the chief hallmarks of psychological science is the use of psychological terms for purposes of behavioral explanation. However, this focus on the psychological realm has confronted investigators with a formidable range of conceptual and mensurational problems. For example, what is the origin of knowledge about psychological entities or states? How is one to determine what terms are to be used in psychological description? How are valid and reliable indicators of the psychological realm to be developed? For personality psychologists, valid measurement of psychological dispositions is often a principal end point of research; for most other domains, such measurement typically serves as a means for testing hypotheses about more general processes such as learning, information processing, development, or the like. It is this critical connection between overt behavior and what is taken to be the psychological realm that we addressed in this research. It is personality research, with its rich history of mensurational exploration, that serves as the proper crucible for the arguments to be advanced.

The classic papers of MacCorquodale and Meehl (1948) and Cronbach and Meehl (1955) largely furnished the rationale for using hypothetical constructs in research on personality traits. As reasoned, if psychology is to become an objective science, statements about the hypothetical realm of the interior must ultimately be grounded in observation. Thus statements about hypothetical constructs should be linked through definitional means to publicly observable events. These linkages must be such that, depending on the character of observed events, one's

statements about the hypothetical constructs are subject to empirical evaluation. For example, in the case of Rosenberg's (1979) measure of the hypothetical construct of self-esteem, a condition of high self-esteem is defined or indicated by one's agreement with such statements as "On the whole, I am satisfied with myself." This linkage is validated to the degree that the individual responds similarly to other items indicative of the same disposition or behaves in various other ways believed to be expressive of this state. Confidence that the item enables one to measure a state of high self-esteem would be threatened to the extent that agreement with this item is negatively correlated with other indicators of high self-esteem.

Although this general line of reasoning has been virtually foundational for the past 50 years of personality study, emerging arguments in neighboring disciplines suggest that a contemporary reassessment is in order. Of particular concern are developments within the hermeneutic or interpretive domain. Hermeneutic study emerged during the 17th century as a discipline devoted to establishing guidelines for the proper interpretation of Biblical scripture. By what criteria, it was asked, is one interpretation to be held superior to another? Hermeneutic study has since evolved into a more general line of inquiry, shared by theologians, philosophers, literary analysts, social scientists, and others. Such inquiry is primarily concerned with the processes by which human beings interpret or discover the meaning of human action in general and linguistic expressions in particular (see Bleicher, 1980; Palmer, 1969). The question of the grounds of accurate or adequate interpretation remains paramount. As is readily apparent, the task of the hermeneuticist parallels that of the personality psychologist: Both are critically concerned with the justification of inferences about particular psychological conditions (intention or meaning in the one case and personality dispositions in the other) from behavioral indicators (typically linguistic in both cases).

Within the present century a major line of thinking has emerged within hermeneutic thought, one of far-reaching con-

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sequence for the realm of psychology. As has become increasingly clear to interpretation theorists, the linkages connecting overt utterances and the hypothetical realm of meaning or intention are vitally dependent on historically located conventions. It is these interpretive conventions (sometimes termed *forestructures of understanding*) that determine how a text is interpreted and not the author's intention in itself. Thus text or utterance may properly be expected to convey different meanings within various subcultures and across history. From this perspective, the concept of "true meaning" is rendered problematic. Thus, for example, Gadamer (1975) argued that one does not confront a text in a historical vacuum. Rather, people dwell within a contemporary "horizon of understandings," and these understandings inevitably fashion their interpretation of texts. Or, as Ricoeur (1971) proposed, "with written discourse, the author's intention and the meaning of the text cease to coincide. . . the text's career escapes the finite horizon lived by the author" (p. 532).

We extend the implications of this line of thinking to the classic questions confronting the psychologist. Responses to personality assessment devices, verbal and otherwise, stand in an equivalent relation to psychological dispositions as language does to meaning. Thus from the hermeneutic standpoint, any conclusions reached about the nature of psychological constructs on the basis of observation may be governed principally by the contemporary conventions of interpretation. For example, describing oneself as independent and decisive is often viewed as a sign of masculinity at the psychological level, whereas characterizing oneself as emotional and aware of others' feelings is said to indicate a feminine disposition. Yet, the warrant for using such utterances to infer such dispositions depends principally on whether it makes sense in contemporary culture to say that such self-descriptions are legitimate expressions of gender makeup (Spence, 1983; Tellegen & Lubinski, 1983). As language usage within the culture evolves, the legitimacy of such connections may wax and wane. Investigators who use the F scale have already confronted this problem. As Ghiselli (1974) and Lake, Miles, and Earle (1973) argued, the F scale of the 1940s may today be obsolete. The meaning of answers to questions such as "Homosexuals are hardly better than criminals and ought to be severely punished" and "Nowadays more and more people are prying into matters that should remain personal and private" would be far different to the contemporary sensibility than in earlier decades.

One can argue that a certain degree of temporal decay in the meaning or proper interpretation of various personality indicators can be tolerated. As long as there is widespread agreement by investigators and subjects alike that a given utterance means, indicates, or stands for a given disposition, then one might legitimately proceed (at least for a time) on this basis. Yet, there is good reason to suspect that the problem of proper interpretation is more acute. Two major difficulties must be confronted. As long recognized within the hermeneutic tradition, the warrant for interpreting the meaning of any given word or phrase usually depends on one's reference to the context in which it is embedded. Thus in written discourse one typically clarifies the intention behind a given word, phrase, or sentence by demonstrating how it figures within the corpus of the work as a whole. If a character in a novel addresses another as "a fool," the meaning of this term significantly depends on whether the two have been described, for instance, as friends or as enemies, as given to jocu-

larity or as formal, and so on. As traditionally maintained, the constraints that may be placed over the interpretation of any particular utterance derive primarily from the elaboration of context. Thus to know what is meant by a given sentence is essentially to find the sentence predictable, by conventional standards, from the context in which it occurs.

In the case of personality assessment, it is precisely the extended context that is unavailable, either to the test taker or to the investigator; that is, the assessee is typically confronted by items (questions, statements of value, self-ratings, etc.) that lack the kind of context that would enable him or her to make a meaningful reply. To describe oneself as "loving," for example, without taking into account the conditions (e.g., in battle, at a wedding, on the street), the potential targets (e.g., men, women, crocodiles), and the agent of the question (e.g., one's children, one's ex-love, a drill sergeant) is to furnish a response that is essentially open-ended in its psychological and social significance. Similarly, for the assessor, an array of responses that are taken out of the kind of context that would elucidate or constrain their meaning essentially furnishes a blank slate upon which a potentially immense variety of interpretive preferences may be inscribed.

An additional problem with reaching a convincing consensus with regard to personality description arises from pragmatic demands of psychological explanation in everyday interchange (cf. Gergen & Gergen, 1982). Normal relationships place a considerable demand on participants to make their actions intelligible—that is, to furnish meanings or interpretations for their conduct (cf. Harré, 1981; Shotter, 1981; Tedeschi & Reiss, 1981). Such phrases as "What I mean by this is . . ." "Don't take this wrong, but . . ." "If you see it my way," or "This is a token of . . ." are among the many signals that interpretive instructions are to follow. The speaker is to inform the listener of the proper means of interpreting his or her actions. In a major degree the success of one's social trajectory is dependent on one's capacity to manage the interpretations made of his or her conduct (Pearce & Cronen, 1980). However, the exigencies of interpretation management often militate against the stabilization of interpretive conventions. Rather, practical demands suggest that cultural participants frequently strive to alter, bend, or reshape existing rules of interpretation and to create novel means of demonstrating the desired meaning of their acts. For example, it appears that considerable ingenuity has been devoted within the culture to ensure that the words "I love you" do not fix or unambiguously designate a given psychological state. When one's words unequivocally fix one's psychological condition, flexibility of action is decreased. The struggle toward ambiguity may leave people free to claim a wide range of indicators as expressions of a particular psychological state, and to claim any given utterance or activity to be an expression of wide-ranging states.

For the psychologist, the result of both the "decontextualization" of measurement and the elasticity in rules for linking psychological state terms to language use may be nontrivial. As the conventions for making such linkages are obscured, it becomes increasingly difficult to justify any particular interpretation of a behavioral indicator. If any indicator is subject to an indeterminate number of interpretations, then the warrant for any selected interpretation is open to question. Normally such questions are not open to debate. This is primarily so because once the meaning of a test item response has been framed within a given

perspective, its sense appears transparent. For what reason should one wish to challenge the eminently sensible? For example, one may discern many possible motives for a person's saying "I often wish I were someone else." However, once the item is included within a battery of items said to enable one to measure self-esteem, its meaning seems to be disambiguated. One is loath to question the interpretation without special justification. Over time the received interpretation becomes "objectified," a constituent of the common sense reality of the discipline. Of unfortunate consequence, this means that on the professional level the range of explanatory alternatives becomes restricted; theoretical possibilities are truncated rather than expanded. On the applied level, people's lives may be vitally affected by the sustaining interpretation. Depending on their scores on various mental tests, people's options may be denied, paths discouraged, or remedial training recommended. Such policies may be implemented without the affected persons being given access to the process of interpretation in which they are implicated.

We attempt to explore the limits of interpretive flexibility within the sphere of personality assessment. What constraints, if any, may be placed over the range of possible interpretations of responses to personality trait indicators? As a test vehicle, an assessment device was selected on the grounds that it (a) had been subjected to intensive study, (b) continues to be in broad usage, and (c) has elicited generalized agreement regarding proper interpretation. The Rotter (1975) measure of perceived locus of control appears to meet all of these criteria. Evidence regarding predictive validity has accumulated for almost two decades (cf. Findley & Cooper, 1983; Lefcourt, 1976, 1981; Phares, 1976; Strickland, 1976). The measure continues to play a prominent role in wide-ranging research endeavors. Largely because of the high degree of face validity of the 23 items that constitute the measure, minimal question has been raised over what psychological disposition that the items are enabling one to measure. We place into question the warrant for the received view. The specific attempt is to explore what limits may be placed over the options for interpreting the research data on which existing conclusions rest. What limits, if any, may be placed over the range of meanings that may be assigned to scale outcomes and thus the range of existing research in this domain?

### Study 1: Can Any Response Express Any Trait?

#### Method

In contrast to most research in which the ideal is to procure an average sample from the population at large, inquiry into the potentials of language use requires a sample of highly skilled practitioners. The attempt is to challenge sophisticated language users to interpret items that ostensibly enable one to measure locus of control in a variety of alternative ways. Initial participants in the research were thus 24 students enrolled in the University of Pennsylvania Graduate School of Education. Each participant was furnished with a small booklet of "Interpretation Puzzles." In the initial section of the booklet they were told that they would be presented with a series of opinion statements, each coupled with a single personality trait. It was their task to show how it would make sense to say of someone who agreed with the opinion statement that he or she possessed the trait in question, or, as it was said, if someone had the trait in question, whether an explanation as to why he or she would agree with the opinion statement could be furnished. If no sensible explanation could be found, participants were to try to indicate why. The opinion items were drawn from the Rotter internal-external (I-E) locus of control mea-

sure; all items from the measure were used. The trait terms were taken from Anderson's (1968) list of 555 common personality-trait terms. Each booklet contained five separate interpretation puzzles; each puzzle was represented by a randomly selected I-E item (without regard to whether the item was scored in the internal or the external direction) along with a randomly selected trait term (e.g., *relaxed, moral, cautious*). In total, the participants were exposed to 120 separate trait-item combinations.

#### Results

The results of this inquiry into the flexibility of explanatory conventions were clear-cut. Of the array of 120 combinations, only 4 failed to make sense to the participants. Two of the four were found incoherent by the same subject. In most cases, the solutions to the puzzles were achieved with little apparent effort. Typically, only a single sentence was required in order to demonstrate how agreement with an I-E item served as a plausible indicator of a randomly selected trait. The flavor of the participants' solutions is best demonstrated with several examples:

1. A person who is *shy* says, "There is a direct connection between how hard I study and the grades I get" (scored as internal on the Rotter scale) because "Such a rationale excuses the shy person from too much socializing and allows him to secrete himself in his room."

2. A person who is *impulsive* says, "Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries" (scored as external) because "An impulsive person might very well need to justify his feelings of staying too short a time with one project or another by believing that no matter how persevering or committed he remains, he won't be acknowledged anyway."

3. A person who is *logical* says, "In the long run people get the respect they deserve in this world" (scored as internal) because "People don't get respect randomly; some prior events determine how much respect people get. Thus, the logical person can use his logic to make predictions."

It is possible, of course, that under the duress of solving such problems, the participants may have furnished answers that were incoherent or nonsensical. Thus, we made a separate inquiry into the plausibility of the various solutions. In this case, ratings were made by a panel of 7 additional graduate students, each asked independently to judge the plausibility of a series of approximately a dozen interpretations selected at random from the protocols of the 24 participants. Judgments were made on a 4-point scale ranging from 1 = *nonsense* to 4 = *highly plausible* (2 = *doubtful rationale* and 3 = *plausible*). The overall mean evaluation of the 84 accounts made by the participants proved to be 3.25 ( $SD = 0.84$ ), which indicated that the solutions to the challenges were generally quite plausible. Four of the judges were then furnished with additional puzzles to solve, among which were the four cases that members of the original sample were unable to solve. In this case, a solution was readily found to each.

In summary, the results of this initial study suggest that contemporary language conventions permit virtually any item of the I-E scale to be plausibly interpreted as an expression of virtually any common trait disposition.

### Study 2: Multiple Traits and Responses

Given the high degree of interpretive flexibility found in the initial study, we made additional attempts to press for possible

limits. In the first of these queries, we raised the question of whether any given item from the I-E measure could be plausibly interpreted as an indicator of a variety of different underlying traits. In order to explore this possibility, a group of 7 undergraduate volunteers from Swarthmore College was exposed to a series of interpretation puzzles, among which were seven items from the I-E scale (four indicating an external orientation and three an internal). For each item, three different trait terms were randomly drawn. Thus each of the seven items appeared three different times on the protocols, in each instance with a separate trait term. Each participant confronted each item only once, but there was no duplication across participants in the trait term associated with the item. The instructions for this task were identical to those for the first study.

The results of this inquiry demonstrated first that there were no trait-item pairings for which participants failed to furnish a solution. Thus, for example, the participants could demonstrate that the item "How many friends you have depends upon how nice a person you are" (internal) could serve as a reasonable indicator of *responsibility*, *loyalty*, and *shyness*; in addition, according to participants, the item "Who gets to be boss depends on who was lucky enough to be in the right place first" (external) could sensibly be seen as an expression of a person's *oversensitivity*, *practicality*, or *boldness*. A later panel of five judges also found these interpretive solutions to be quite plausible. In this case the average plausibility rating was 3.04 ( $SD = 1.12$ ).

To extend this inquiry, we then attempted to explore whether a variety of items could all serve as signifiers for the same trait, a trait other than locus of control. Most cogently, we asked, are the rules of intelligibility sufficiently flexible to permit various traits to be plausibly expressed in logically opposing statements? To explore this possibility, we embedded eight trait-item pairs within the booklets to which subjects in the first study were exposed. Four traits (e.g., *broad-minded*, *optimistic*, *fearful*, *jealous*) were randomly selected (two from the positive and two from the negative pole of Anderson's 1968 list), and each was paired with two I-E items, one traditionally used to assess an internal and the other an external orientation. Each of the 8 participants in this study were exposed to all four traits, but to only one of the two pairings (i.e., either an internal or an external pairing).

The results of this exploration revealed that participants were successfully able to develop linking rationales for all pairings. The same trait could successfully be related to expressions of both internally and externally scored items. For example, one participant wrote that a *broad-minded* person would say, "In the case of the well-prepared student, there is rarely if ever such a thing as an unfair test" (scored as internal) because "A broad-minded person is willing to admit that if one is well prepared, tests will rarely be unfair. A narrow-minded individual would be more suspecting and defensive." On the other hand, wrote another participant, a *broad-minded* person would say, "As far as world affairs are concerned, most of us are the victims of forces we can neither understand or control" (scored as external) because "A broad-minded person wouldn't try to 'blame' world events on a particular politician or groups." The average plausibility of the explanations proved acceptable ( $M = 3.21$ ,  $SD = .98$ ).

To strengthen the case still further, 12 additional students were furnished with the same task but this time were asked whether

they could demonstrate how opposite traits (i.e., *broad-minded* and *narrow-minded*; *optimistic* and *pessimistic*; *fearful* and *brave*) could be expressed in the same response. In this case, half the participants were asked to demonstrate how *broad-minded*, *optimistic*, and *fearful* were expressed in a series of internal and external items, whereas the remaining half were asked to develop rationales for linking *narrow-minded*, *pessimistic*, and *brave* to the same statements. The results of this analysis paralleled the first. All pairings were explained by the participants. One may obtain a flavor of the results by comparing the previous accounts of how broad-mindedness would be expressed in both internal and external items, with explanations of how narrow-mindedness would be revealed in the same items. In the case of the internal statement concerning the well-prepared student who did not believe in an unfair test, one student wrote, "A narrow minded person would say this because he would not take into account all the many reasons a test could be unfair." In the case of the external statement concerning being victims of forces that one cannot understand or control, another student wrote, "a narrow-minded person is one who doesn't want to look too deeply inside himself to see how he is really responsible for what happens to him." The average plausibility of these various explanations was 3.16 ( $SD = 1.03$ ).

As these studies indicate, intelligent language users can construct a plausible rationale for interpreting randomly selected items from the I-E scale as indicators of a multiplicity of traits. Furthermore, any single trait may be seen as expressed in multiple items from the I-E scale. Of particular note is that the rules of interpretation appear sufficiently flexible that both internal and external statements can both be understood as revealing the same basic trait. Such statements can be interpreted satisfactorily as indicators of both a given trait and its opposite.

### Study 3: Multiplicity of Individual Trait-Item Linkages

#### Method

If a given trait could be linked to a given item in only one intelligible way, important limits might then be placed over the possible interpretations made of various personality measures. Items could be expanded or altered so as to enable one to rule out or be maximally attuned to a given interpretation as required. To explore the range of linking rationales, we carried out a further study with 10 volunteers from Swarthmore College. In this case, four randomly selected traits were paired with I-E items (two scored in the internal and two in the external direction). We used the same research format as that described earlier. This allowed us to assess the number of rationales by which an item might be used as an indicator of a given psychological trait (other than that trait purportedly measured via the item.)

#### Results

The results of this study first indicated that all of the possible trait-item linkages could be performed. Inspection of the conventions used to relate trait to item also revealed that for no such linkage was the same rationale used by all 10 participants. Rather, for each pair, a variety of linkages was offered by the participants. When these rationales were subclassified, we found that the number of ways of relating a given trait term to an I-E item varied between three to six (for 10 subjects). A fuller appreciation of the results may be derived from the following ex-

ample: Participants were asked to explain why a *lonely* person would say, "Who gets to be boss often depends on who was lucky enough to be in the right place first" (scored as external). The 10 explanations (largely paraphrased) could be grouped as follows:

*Compensation.* (a) A person may say this to explain why he or she has no relationships with others, in order "to cover up other, less acceptable explanations." (b) A lonely person probably isn't a boss; he or she does not want to attribute this to himself or herself, and so attributes it to luck. (c) A lonely person has a difficult time in personal relations and "may rationalize to the point of denying" that his or her actions have anything to do with it. (d) A lonely person is poor at social relations, and never got to be a boss; this is said "to protect" himself or herself.

*Logic of loneliness.* (a) A lonely person lacks self-confidence and thus believes that his or her actions will make no difference in the outcome. (b) A lonely person is unmotivated and detached, and thus believes in the luck of the situation. (c) A lonely person feels left out and isolated, and therefore believes that luck has most to do with success. (d) Becoming a boss is a great deal of work for the lonely person, so he or she "demeans the boss-choosing process."

*Incapacity.* A person's loneliness stems from his or her lack of understanding of personal relations. This lack of understanding is also revealed in his or her perception of how people get to be leaders.

The 10th participant in this case simply used a "common sense claim": to wit, lonely people believe that "exterior forces such as luck have more control over persons' conditions than [do] persons themselves."

As indicated in this study, then, there appear to be a multiplicity of explanatory means by which people can demonstrate how a given utterance is an expression of various common traits. A group of 10 language users in this case could typically locate between three to six rationales for making such connections. One may well anticipate that by increasing the pool of participants, or locating participants with greater linguistic sophistication, one could expand even further the number of intelligible links.

#### Study 4: Making Sense of Multiple Items

Thus far the results suggest an impressive degree of flexibility in contemporary conventions for linking terms referring to various psychological states with various self-descriptive statements. How might the weight of these results be diminished? What counterarguments may be posed? At least one possibility derives from the logic of personality assessment: namely, the rationale for using multiple items. As it is reasoned, any given item may be influenced by a variety of psychological factors, and one would thus be ill advised to trust single-item measures of any trait. Rather, it is essential to use multiple items that have a demonstrated relation to each other. In this way, extraneous factors that influence responses on any single item will be obscured, and the contribution of the focal trait will be maximized in the summary score. Applying this logic to our results thus far, one may argue that the flexibility of interpretation has been demonstrated only with single items. Although any single item may be interpreted in several ways, significant constraints over interpretation may derive from the use of multiple items.

#### Method

To explore this possibility, we carried out two studies, the first as a preliminary to the second. The initial study was prompted not only by the concern just stated, but also by the fact that the I-E scale traditionally demands of respondents that they select between pairs of self-descriptive items, one treated as an expression of an internal and the other an external orientation. Yet, in all studies described thus far, traits have been linked to either an internal or an external statement. Thus in order to explore whether plausible linkages could be constructed when both items appeared simultaneously, 8 Swarthmore students were given six pairs of statements randomly selected from the I-E measure. For each pair a trait was randomly drawn from the Anderson (1968) list, and the participant asked to explain why a person who possesses that trait (e.g., *insecure*, *independent*, *inquisitive*) would agree with one of the statements (selected at random) rather than the other. In all, 12 different traits were matched with 12 different item pairs; subjects were challenged to construct half of the linkages to internal and half to external choices.

#### Results

We found that participants were able to construct all linkages with which they were challenged. The addition of the second statement, said to be "not chosen" by the test taker, produced no barrier to the effective exercise of interpretive capacities. Furthermore, we found that when these linkages were given to an additional sample of 6 students, that the average plausibility rating was 3.32 ( $SD = .97$ ).

These results furnished a useful prelude to a more stringent assessment of interpretive flexibility. In this case, 24 graduate students at the University of Pennsylvania were exposed to a series of "Triple Puzzles"; that is, they were asked to explain how an individual who possessed a single trait, which was selected at random, could agree with three separate statements from the I-E measure (also randomly selected). Thus, for example, a participant might be asked how a *fearful* person could agree with all three of the following statements:

1. In any case, getting what I want has little or nothing to do with luck. (Internal)
2. As far as world affairs are concerned, most of us are the victims of forces we can neither understand nor control. (External)
3. Many times we might just as well decide what to do by flipping a coin. (External)

Each participant was presented with three triple puzzles. Nine different traits were used with nine corresponding item triads.

As the analysis of these data demonstrated, of the 72 interpretive challenges, 68 were executed. Because the triple puzzles were included in a larger battery of tasks, and required a greater degree of effort than other sections of the questionnaire, the slightly elevated number of failures to complete might be anticipated. However, insofar as these failures could also be viewed as a signal of interpretive inflexibility, it was possible to examine whether any trait-triple-item pair was insoluble for the other 7 participants exposed to the same pairing. As this analysis revealed, there was no trait-triple-item pair for which at least 7 of the 8 relevant participants could not furnish linkages. Thus, for example, for the triad just presented, one participant said that the initial statement would express fearfulness because "The fearful person believes he controls his own situation by watching out for all things he fears." Such a person was said to endorse the second statement

because "A fearful person recognizes the limits of his vigilance." And the third item would be endorsed because "A fearful person gets depressed when confronted with the limits of his vigilance."

In order to assess the intelligibility of these interpretations, a further sample of 8 college students was asked to rate, in the same manner just reported, the reasonableness of a selection of rationales from a random group of 18 trait-item pairs. On the same 4-point rating as that mentioned earlier, the mean of the evaluations was 3.04 ( $SD = 1.11$ ), which indicated that the interpretations furnished by participants were well within the bounds of reason.

In summary, relatively sophisticated language users could develop intelligible reasons for viewing agreement with randomly selected statements from the I-E battery, in the context of disagreement with a contrasting statement, as indicative of wide-ranging traits. Furthermore, randomly selected traits could be seen as intelligibly and simultaneously expressed by as many as three separate I-E items.

### Study 5: From Face Validity to Generic Trait

A further argument against this analysis again derives from fundamental views of the assessment process. Although it may be possible for sophisticated language users to show how a handful of items may be expressions of traits other than the one initially designated, such interpretive demonstrations might wear thin if applied to the battery of 23 items. In effect, one may venture that each of these items possesses face validity. The most obvious interpretation to be made of the claim to seeing oneself as internally controlled is that the individual believes himself or herself to be internally controlled. If the various interpretations constructed within these exercises were pitted against the designated interpretation, the latter might well be found the superior in plausibility. Alternative interpretations possess varying degrees of plausibility (as is evident in the magnitude of the standard deviations), but on the face of it they will be less plausible than the designated interpretation.

In inspecting this line of defense, one must confront two major issues. First, in such a defense one makes the fundamental error of presuming that "face validity" reflects the degree to which a response accurately indicates the underlying disposition. In fact, in arguing for face validity, the researcher essentially asks that one accept the most conventional interpretation (typically for a given subculture) rather than the most accurate one. It is true that one's acceding to convention enables social life (or life within scientific subcultures) to proceed more smoothly. As Garfinkel (1967) showed when people are consistently asked to clarify what their utterances "really mean," relationships rapidly deteriorate. However, to capitulate to the demand for smooth relationships does not thereby enhance the accuracy of the interpretations. Under many circumstances (e.g., when people wish to create a good impression, avoid attention, seek help) there may be good pragmatic reason for casting aside the convention of face validity. If one is concerned with generating "an enlightened view," "fresh insight," or a catalytic conceptualization within the sciences, an appeal to convention may be counterproductive.

Yet, there is a deeper difficulty at stake in the argument for face validity. When the argument is explored, one confronts an

indeterminacy of interpretation that is even more extended than that suggested thus far. The problem is essentially that of locating the generic source for item responses. One assumes in the case of face validity that the linguistic expression reflects an immediately underlying intention or disposition. However, this assumption does not warrant the further assertion that the intention or disposition is the generic source of the expression. Such intentions or dispositions may be only superficial vehicles for the expression of deeper or more fundamental motives. In the case of the I-E measure, an individual may indicate as many as 23 times that he or she is not in control of outcomes. Yet, one may ask, what is the psychological basis for such patterns? The individual may be giving voice to his or her immediate intentions, but what lies behind the intentions? Mere intentions are uninformative until one discerns their underlying determinants. It is at this point that myriad possibilities are confronted. A wide range of motives or traits could plausibly give rise to the more superficial or proximal intention.

### Method

In order to explore the implications of this argument more concretely, Swarthmore undergraduates were first given questionnaires in which they were asked to make conjectures about the goals or needs that might underlie a person's saying (in various ways) that he or she either (a) viewed himself or herself as in control of outcomes or (b) viewed outcomes as largely a result of circumstances beyond his or her control. As this inquiry demonstrated, most participants could furnish a variety of generic sources for such statements. For example, it was said of those who generally see outcomes as outside of their control that they are expressing a need for others to help them succeed (nurturance), a need to excuse their current position, a complacency over their condition, basic cynicism, a state of serenity, pessimism, need for others' reassurance, and so on.

Even if all items on the I-E scale are taken as face-valid indicators of what people desire to communicate, multiple assertions that the world is controlling (or not) do not themselves permit one to designate the underlying motivational or dispositional source. Common linguistic conventions permit such assertions to be interpreted as motivated, driven, stimulated, or otherwise influenced by a wide variety of "deeper" psychological sources. But push the analysis a step further: To say that a person's utterances are the result of needs for nurturance, drive for success, basic cynicism, and the like still leaves open the question of psychological basis. What motivates a person to seek nurturance, to strive for success, and so on? More generally, this is to say that every candidate for a generic source trait or disposition might be dislodged from such candidacy by means of inquiring into its genesis. Each generic trait or stimulus becomes an effect or a "superficial manifestation" when its source is considered.

The implications of this argument were explored in two additional studies. In the preliminary study the free responses generated by participants in the preceding exercise were examined. Four traits or dispositions that were said to be the cause of people's claims that they were in control of their outcomes were selected on the basis of their frequency. Eight undergraduates were then exposed to a set of "psychological speculation puzzles" in which they were asked how it is that persons who characterized themselves as possessing one trait might actually be demonstrating an underlying (or more basic) alternative trait. For example, a participant was asked how a person who expressed a need to be superior could actually be demonstrating a more basic need for control. Thus each of the four traits (need for *superiority*, *control*, *freedom from anxiety*, and *self-esteem*) was featured in both a generic and a surface position, and each related to all others.

## Results

As the results demonstrated, participants experienced no difficulty in forming intelligible connections among all surface and source traits. For example, as one participant wrote, "A person who indicates his need for superiority may actually be expressing a need for control because those who want control need superior positions in order for them to be able to control." And as another participant indicated, "One who expresses freedom from anxiety is more basically a person who feels good about himself, i.e., has high self-esteem." As this exercise indicates, then, each manifest disposition could be intelligibly interpreted as a result of another more generic psychological disposition. And each of these dispositions could be viewed, in turn, as the surface manifestation of a more basic source. All four layers of explanation could be traversed. In effect, the explanatory base could thus be rendered fully circular insofar as the most basic trait could be viewed as an effect or manifestation of the surface disposition with which the search began. Expressions of internality can be seen to reflect a need for superiority, which is intelligibly viewed as the result of the individual's need for self-esteem, which functions to reduce anxiety. However, the state of reduced anxiety may be viewed as a byproduct of the more basic tendency to see one's outcomes as contingent upon one's actions. The explanatory circle is complete.

These results raise a more general question: Are the linguistic conventions sufficiently flexible that virtually any psychological disposition may be understood as a reasonable cause for any other disposition? In order to explore this possibility, 18 Swarthmore undergraduates were exposed to four different pairs of trait terms drawn randomly from the Anderson (1968) list. For each pair the student was asked how a particular characteristic of the person (Trait 1) could be motivated or caused by a second attribute (Trait 2). Thus, for example, the students were asked how a person's *practicality* might be motivated or caused by his or her *hopefulness*, how being *comical* could be caused by *resentfulness*, how being *foolish* could be caused by the person's desire to be *charming*, and so on. In all, 40 different trait combinations were used.

The results of this study largely duplicated the previous patterns. Linkages were successfully constructed for all of the 40 different trait combinations. (Three such linkages were not executed by certain participants, but whereas one participant failed to make the linkage, another or others successfully did so.) In order to assess general plausibility, each questionnaire was then evaluated by one other participant in the group. The average plausibility rating for all trait combinations in this case was 3.31 ( $SD = .74$ ), a mean that closely approximates the pattern revealed in earlier studies and indicates a high degree of plausibility.

As this series of explorations thus suggests, contemporary language conventions are sufficiently flexible to permit most common trait designations to be plausibly understood as surface manifestations of many other traits at a "deeper level." Trait dispositions operating at the deeper level may intelligibly be understood as a manifestation of still more remote generic sources. Is it possible, one may ask, that any pattern of action, such as claims made to see one's outcomes as under chance or personal control, could be compellingly traced to the full range of common trait dispositions extant within the culture?

## Study 6: The Negotiability of Predictive Validity

A final means of combating the implications of our line of argument must be addressed. Traditional assessment theory holds that the validity of a measure is established in important degree through predictive study (Lanyon & Goodstein, 1971; Mischel, 1968; Sundberg, 1977). To achieve validity, any given measure should be predictive of various behaviors to which it is conceptually related (convergent validity) and should not be predictive of those behaviors from which it is conceptually independent (discriminant validity). Thus far our analysis has dealt chiefly with the indeterminacy of interpretation of personality tests. However, using the argument for predictive validity, one may propose that such indeterminacy may be constrained by predictive study. Although test items, either individually or collectively, may be subject to an indefinite number of interpretations, many of these interpretations will be rendered untenable as the measure is correlated with or used to predict other patterns of behavior.

This line of argument seems compelling enough until one returns to the fundamental line of reasoning with which our analysis began. As outlined, from the hermeneutic standpoint, all utterances stand in need of interpretation. What may be said of underlying intention, meaning, or motivation must be framed within contemporary conventions of intelligibility; otherwise the utterance is simply nonsense. Yet various behavioral patterns stand in the same relation to underlying dispositions as do linguistic utterances. What can be said of their relation also depends on historically located conventions of making sense. For example, what underlying disposition does "smoking behavior" reveal? It is conventional in some sectors to interpret such behavior as indicating "oral needs"; others see it as an anxiety indicator, or as an anxiety reducer; yet the conventions do not currently permit one to interpret smoking as a sign of "spirituality." To the extent that behavior patterns are considered in a decontextualized manner and the meanings of such patterns are rendered flexible through usage, behavioral observations may be subject to the same flexibility of interpretation as personality test data.

In order to explore the implications of this reasoning, an additional 16 Swarthmore undergraduates were given a fresh set of interpretation puzzles to solve. In this case, they were asked to explain how various behavior patterns could indicate that a person possesses a given trait (drawn from Anderson's 1968 list). The behavior patterns in this case were drawn from the annals of research on the I-E test. Such predictive studies have demonstrated, for example, that the test is successfully predictive of joining social movements (Gore & Rotter, 1963), of social persuasiveness (Phares, 1965), of assertiveness (Doherty & Ryder, 1979), of perception of others' friendliness (Holmes & Jackson, 1975), of task solving (Lefcourt, 1976), of experience of anger (Holmes & Jackson, 1975), and so on. The questionnaires were further arranged so that four of the trait-behavior-pattern pairs were repeated, but in this case participants were asked to explain how the trait in question could be expressed in a pattern that was the opposite of the pattern in question. Thus, for example, participants were asked how joining a social movement is a good indicator of a person's underlying *hostility* and then, later, how deciding against joining a social movement is a good indicator of the same trait. In this way a more stringent assessment could be made of the flexibility of interpretive conventions: Are the

conventions sufficiently flexible that various behavior patterns and their contradictions can be used as "evidence" for a given trait?

As this exploration first revealed, of the 240 trait-behavior-pattern combinations, there was none that participants failed to render intelligible. Second, the participants located multiple linkages between trait and pattern. Thus, for example, a person who is *helpful* fails "to be persuasive" because, as one participant put it, "Helpful people are so eager to be accepted that their actions are unnatural and therefore unpersuasive," or, as another wrote, because "Helpful people are interested in others' welfare and not in manipulating them through persuasion," and, as a third asserted, because "Helpful people are likely to offer a variety of alternatives to people in their effort to help and therefore don't persuade others to take any one position." For the 16 participants the modal number of explanatory rationales generated for each trait-pattern pair was three. As a third finding, in each of the four reversals the participants were able to show how a given trait could account for both a given pattern and its contradiction. Thus, for example, a *hostile* person might join a social movement "as a way of finding an expressive outlet for his emotions" and would decide against joining a social movement because "by nature people who are hostile to others are loners." A *logical* person would "fail to be assertive in a relationship" because "people who are logical spend most of their time trying to figure out what is happening in a relationship rather than taking action," and the same type of person would be "very assertive in a relationship" because "they can see clearly what is going on and would thus want to assert themselves." A further check was made of the general plausibility of the participants' solutions. The mean plausibility ratings assigned by a group of 5 raters, exposed to 20 randomly selected solutions, was 3.32 ( $SD = .86$ ), on the same 4-point scale used in the earlier studies.

In summary, predictive validity does not appear to offer an objective crucible for interpreting trait measures. Behavior patterns, such as being persuasive, active, assertive, and so on are, like assertions on personality tests, subject to a high degree of interpretive indeterminacy. Each may be compellingly viewed as the overt result of myriad source dispositions.

### Discussion

As a whole, our findings reveal a remarkable flexibility in the explanatory conventions linking both verbal utterances and other patterns of behavior to psychological dispositions. In brief, the findings indicate the following:

1. Most statements from the I-E inventory can be plausibly interpreted as a reflection of an indeterminate number of common psychological trait terms.
2. Single statements from the I-E inventory can be plausibly understood as an indicator of many different trait dispositions, and differing trait dispositions may be revealed in single I-E statements.
3. Logically opposing statements (avowals of either an internal or an external orientation) are found to be plausible expressions of the same underlying trait disposition. Furthermore, logically opposing dispositions may be found revealed in the same I-E item.

4. There are multiple ways for making intelligible the relation between various trait dispositions and self-descriptive statements. Within a group of 10 language users, from three to six different explanatory rationales can typically be formulated for why agreement with an I-E statement is a good indicator of a randomly selected trait.

5. As many as three different items from the I-E measure (scored in either the internal or external directions) can be plausibly traced to the same underlying trait.

6. Any immediate cause of one's overt activity may also be seen as an effect of more basic motives. Thus dispositions toward control may plausibly be viewed as the localized effect of more fundamental trait dispositions. In this case, language users can spontaneously generate a large number of underlying dispositions that foster a disposition toward control. Furthermore, these dispositions may be traced to still more fundamental dispositions. Ultimately it may be possible to make a plausible case for explaining virtually any psychological trait as an effect of virtually any other kind of psychological disposition.

7. Behavior patterns that are traditionally correlated with the I-E scale (for purposes of generating construct validity) can be plausibly interpreted as expressions of an indeterminate number of trait dispositions within the common vernacular.

Let us consider the limitations of the findings and their implications for personality study and psychological inquiry more generally. To be sure, results such as those reported here can hardly be considered conclusive. The research was confined to items from a single personality measure, and it is possible that items from this measure are unusual in the degree to which they permit such wide-ranging interpretations; more research would be useful in this regard. One might argue as well that the communication process is not as chaotic or relativistic as these findings suggest. People are not forced to consider an immense range of alternatives each time another speaks; unproblematic understanding seems the rule rather than the exception. Yet, it is important to be clear about what is and is not being said in this analysis. Our analysis does not deny that much communication proceeds with relative ease. As long as one participates within the accepted conventions, and as long as there is a relatively unambiguous context of communication, social interchange may proceed smoothly. However, we maintain that which respect to items on personality tests, there are multiple conventions available for interpretation and there is little in the way of a context for constraint. Test items are not embedded within the kinds of contexts that would constrain interpretation. As a result, any given subculture (including scientists themselves) should be able to sustain a given "construction of personality" without threat of empirical falsification.

With respect to the implications of our work for the field of personality study, our findings raise significant questions concerning the role of scientific investigation. Typically, researchers in the discipline have assessed their outcomes in terms of their contribution to understanding, prediction, and control. Our findings suggest that the range of such concerns must be expanded to include both social and moral issues. Traditional researchers have largely treated descriptive accounts of personality pattern as value neutral. Thus it is widely assumed that one can carry out research on the I-E dimension, self-esteem, sensation seeking,



self-monitoring, and the like without acting as a moral agent within the culture. The scientist merely attempts to describe what is the case, it is argued, and it is up to others to decide what valuational ends such accounts are to serve. Yet, from the standpoint of our study, descriptive accounts of personality do not appear to be significantly constrained by actual patterns of behavior. As we see, each interpretive account represents a choice among an immense array of alternatives, and this choice is not grounded in the evidence itself. In our case, the putative measure of orientations toward control was found to be intelligible as an indicator of an indeterminate number of alternative traits. Furthermore, all that could be said about the correlates of I-E could be justified as statements about the correlates of optimism, shyness, cautiousness, impulsivity, and the like (or their opposites).

In our analysis we do not deny the predictive utility of various personality measures. Patterns of correlation may be useful for a variety of practical purposes, and we do not question such pursuits. However, the moment that such correlational patterns are linked to a descriptive language, the investigator has entered into what might be called the *performative arena* (Austin, 1962); that is, he or she has reinforced, extended, or altered the arrangement of linguistic conventions within the culture, and thus acted as an agent for "good" or "bad" according to some standard. Persons who score high on the internal end of the Rotter scale ("internals") are often characterized as potent, assertive, and effective persons, whereas "externals" are generally described as helpless, retiring, and incompetent (Lefcourt, 1981). Such characterizations must be viewed primarily as expressions of evaluative commitments rather than objectively warranted reports of fact. To maintain that one's results demonstrate that internals perform better in educational systems, for example, does not appear to be an accurate reflection of reality as much as it is a rhetorical sanction for the value of internality. When any valued activity (e.g., generosity, political participation, non-smoking) is said to result from a sense of internal control, the scientist is essentially serving as a sanctioning agent: designating certain people as superior and others as deficient. In effect, in our arguments we confront the personality psychologist with an enormous moral responsibility, the proportions of which have only begun to be appreciated in recent years (cf. Apfelbaum & Lubek, 1976; Argyris, 1980; Hogan & Emler, 1978; Morawski, 1982; Sampson, 1977, 1981).

With respect to psychological study more generally, our findings contain wide-ranging implications. As indicated, personality assessment was selected as a test case for the general class of research strategies directed at understanding psychological processes. It is in the personality domain that most assiduous attention is typically paid to the problem of establishing mensurational validity. As our inquiries indicate, many test items within the personality realm may be plausibly explained in terms of an indeterminate number of underlying processes or dispositions. Further data, in terms of correlated patterns, do not improve on the validity of interpretation because each correlate is similarly open to a broad array of interpretations. The question that must now be confronted is whether other domains of psychology are similarly vulnerable. Are research findings in the domains of social, cognitive, perceptual, learning, developmental, and other arenas similarly without interpretive anchors? Our rationale along

with our associated findings, suggests such a conclusion. So do various commentators within these domains who have lamented the lack of cumulative knowledge (cf. Cartwright, 1973; Hathaway, 1972; Koch, 1959; Mayo, 1977; Newell, 1973; Sechrest, 1976). Yet, the difficult but essential task of exploration has yet to be undertaken.

Inquiry into such matters may include extensions of our form of study, along with historical study of knowledge accumulation in the various disciplines. However, such exploration would benefit substantially from a broadening of analytic concern. Serious attempts have been made within philosophy (cf. Mandelbaum, 1967; Taylor, 1971), sociology (Habermas, 1971), literary study (Hirsch, 1967; Ricoeur, 1976), and hermeneutic inquiry more generally to locate limitations over explanatory flexibility and to transcend the historical boundedness of human communication. Debate continues to take place over the success of such arguments (cf. Bleicher, 1980; Gauld & Shotter, 1977; Gergen, 1982). If psychological study is to remain robust, it would be advantageous for psychologists not only to join in such colloquy but to articulate and extend whatever relevant insights have been garnered through psychological study.

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