A Scoring Manual for Literalness in Proverb Interpretation

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A scoring system is offered for literalness of proverb interpretation as an alternative to scoring concreteness. For a group of 115 schizophrenic and normal subjects, literalness and Gorham's concreteness were equivalent on coefficient alpha (.85 for literalness and .84 for concreteness). Interrater reliability was .90 for both scoring systems. Nevertheless, abstraction correlated lower ($p < .01$) with literalness than with concreteness. For 77 schizophrenics, Verbal IQ correlated significantly with concreteness ($r = -.52, p < .01$) but not with literalness ($r = -.15, n.s.$). Thus, literalness is less affected by intelligence and by ability to respond abstractly than is Gorham's concreteness.

When schizophrenics are asked to interpret proverbs, they often respond to the proverb as a literal statement rather than as a bearer of a figurative meaning. For example, when asked to interpret the statement "When the cat's away, the mice will play," even educated and intelligent schizophrenic patients may explain the actions of cats and of mice, rather than of people. This article offers a system for scoring literalness of proverb interpretation.

Dozens of writers have discussed literalness of proverb interpretation, but scoring systems treat it as a manifestation of concreteness. The scoring systems score either concreteness or abstraction, which is merely a term for accuracy of proverb interpretation that is incompatible with literalness. Both low abstraction and high concreteness are usually viewed as implying literalness. However, scoring for either concreteness or abstraction classifies literalness with various other kinds of poor performance that have little to do with literalness. Literalness is a more specific error than either concreteness or lack of abstraction. Literalness is an active attempt to interpret the words of the proverb as a literal message rather than as symbols to be interpreted.

The most commonly used scoring system for proverbs is that of Gorham (1956a, 1956b), who scores abstraction and concreteness separately. He offered a detailed scoring system for abstraction but evidently regarded concrete responses as so obvious that no formal scoring system need be offered. Gorham (1956a) stated his criteria for concreteness very briefly.

Concrete answers are usually apparent to a clinical observer. They stick closely to the symbols of the proverb. In schizophrenics, it is common for patients to substitute "That's right," "exactly," "that is not so because," or "yes" and "no" for a restatement of the proverb in concrete form. These answers are considered to be concrete." (p. 3)

Gorham supplemented this statement with one example of a concrete response to each of seven proverbs.

Many responses by both normal subjects with low intelligence and schizophrenics stick closely to the symbols of the proverb but yet are not literal interpretations of the proverb. If a subject is unable to interpret the proverb but is verbose, he or she will talk about the symbols. Subjects who cannot interpret a proverb appropriately often simply repeat some of the words of the proverb without further elaboration, give associate responses to the words,
relate the words to their own experience, or talk in other discursive ways about the proverb that they are asked to interpret. Such talk is not evidence that he or she interprets the symbols literally, but it would be scored as “concrete” by Gorham’s criteria. For example, one schizophrenic responded to “The worst spoke in the wheel breaks first” with “Wheel breaks, brake locks, break off.” Another patient responded to “He who stumbles twice over one stone deserves to break his shins” with “I don’t stumble, walk straight, never stumble, got to control me, can’t see.” Both of these responses stick closely to the words of the proverb and, hence, would be scored as concrete, but they are not attempts at a statement of a literal meaning. Gorham’s concreteness seems to reflect in large part dullness and a lack of accuracy. In schizophrenia, concreteness is heavily affected by a failure to focus on the task of interpretation and by other aspects of generalized deficit. Literalness should be less affected by generalized deficit because it is a more specific kind of error. Because literalness is less a reflection of generalized deficit than is concreteness, a score for literalness should depend less than does concreteness on both Verbal IQ and abstraction.

The system of scoring literalness that we offer here labels all appropriate answers as nonliteral and only some incorrect answers as literal. This system provides for scoring each proverb on a 3-point scale. This follows from dividing the proverb into two halves, each of which could receive a literalness score of 0 or 1. Thus the total literalness score for the sum of the two halves could be 0, 1, or 2. For example, the proverb “Rome was not built in a day” is sometimes interpreted as “Rome took a long time to build.” In this response, Rome is treated literally, and in a day is treated abstractly, which yields a total literalness score of 1.

The scoring principles offered here could be applied to the interpretation of any figurative statement, although we developed them for proverbs from Gorham’s (1956a, 1956b) clinical form of the Proverbs Test. Actually, not all 36 of Gorham’s items are proverbs in the sense of being figurative statements to be interpreted. Some items are, instead, aphorisms that should be interpreted literally. Examples are “The more cost, the more honor” and “Where there’s a will, there’s a way.” We do not include such items in our scoring system. We regard 24 of Gorham’s items as clearly figurative statements and, therefore, include them. These are Form I, Items 2-9 and Item 12; Form II, Items 1-7 and Item 10; Form III, Items 1, 2, 5, 6, 7, 9, and 11.

Following the example of Friedes, Grisell, Levin, Dobie, and Cohen (Note 1), we designate certain of the words in each half of the proverb as symbols that must be generalized or interpreted to obtain a correct abstract interpretation. For example, in the proverb, “A drowning man will clutch at a straw,” drowning and straw are symbols that must be interpreted, but clutch is not. If drowning or straw are repeated in the answer, a score for literalness must be considered. However, the appearance of man or clutch in the answer need not imply literalness. For example, the response “A man who is in trouble will clutch at any method to save himself” is an adequate abstract interpretation rather than a literal one.

**Scoring Principles for Literalness**

For the sake of brevity, we will illustrate each scoring principle with responses to the proverb “Rome was not built in a day.” The two halves of this proverb are Rome and was not built in a day. The symbols to be generalized in an abstract response are Rome, built, and day.

An entire proverb is considered completely unscorable for literalness if the entire response consists of any of the following:

1. An “I don’t know,” without further elaboration.
2. A reference to a personal experience of the subject as a substitute for interpreting the proverb, for example, “I have never been to Rome.”
3. A response that has no recognizable relationship either to the literal meaning of the proverb or to a possible interpretation of the proverb. Responses can be judged as falling in this category even if they contain one or more of the symbols of the proverb, for example, “Rome is in Italy.”
4. A repetition of the proverb without further elaboration, for example, “Rome was not built in a day.”
5. A repetition of only part of the proverb without further elaboration, for example, “Built in a day.”

6. A semantic associate or a clang associate to one of the symbols without further elaboration, for example, “Paris,” or “Cathedral domes.”

7. Any single word other than yes or no and other than an equivalent to yes or no such as absolutely. An example of the unscorable response is Italy.

8. A bizarre or autistic response, with or without further elaboration, for example, “Roman vices accentuate carnal lust” or “Roman vices can’t be learned quickly.”

9. No response whatever.

Note, however, that many of these kinds of responses are scored if the subject adds other words in the response. See examples below.

A proverb receives a total literalness score of 2 if

1. The response is a reason for the verity of the proverb as literally stated or is an elaboration of its meaning and the explanation or elaboration is based on either physical attributes of the symbols or associates to the symbols in the proverb, for example, “Rome is a big city.”

2. The response is yes or no or an equivalent response.

3. Both halves of the proverb receive a literalness score of 1 by the criteria listed below.

When the response is scorable, one half is scored 1 for literalness if

1. The response half includes a repetition of a symbol or symbols from the proverb half, for example, “Rome took a long time to complete.” Rome is a repetition of a symbol. Took a long time to complete is an appropriate abstract response for the proverb half. The total literalness score is 1.

2. A synonym for a symbol or a rewording of a symbol from the proverb half is included in the response, for example, “The capital of Italy took a long time.” Capital of Italy is a synonym for the symbol Rome. The total literalness score is 1.

3. The response half includes physical attributes of a symbol from the proverb half, for example, “A big city can’t be built in a day.” A big city states physical attributes of the symbol Rome. Built in a day is a repetition of a symbol. Both halves earn a literalness score of 1. The total literalness score for the proverb is 2.

4. The response half is primarily a semantic associate to a symbol from the proverb half, for example, “It took more than one day to build Paris.” Paris is a semantic associate to Rome. It took more than one day is a rewording of not built in a day. The total literalness score is 2.

A scorable response meeting none of the criteria for literalness receives a literalness score of 0. Responses that are scored 0 include the following: (a) a response that is correct (abstract) according to the Gorham scoring manual; (b) another proverb that has the same meaning as the original proverb; and (c) an attempt at an abstract interpretation of the proverb, even though incorrect; for example, “Big projects require great will power.”

The total literalness score for a proverb is the sum of the scores for the two halves. If one half is unscorable, the total score is the score of the scorable half.

The divisions of each proverb into halves and the designated symbols of each proverb are as follows: Form I: 2. Rome/was not built in a day. Symbols: Rome, built, day. 3. When the cat’s away/the mice will play. Symbols: cat, mice. 4. Barking dogs/seldom bite. Symbols: Barking, dogs, bite. 5. A stream/cannot rise higher than its source. Symbols: stream, source.


3. The proof of the pudding/is in the eating. Symbols: pudding, eating. 4. One may ride a free horse/to death. Symbols: ride, horse, death. 5. A rolling stone/gathers no moss. Symbols: rolling, stone, moss. 6. Strike/while the iron is hot. Symbols: strike, iron, hot. 7. All is not gold/that glitters. Symbols: gold,
Table 1
Mean Literalness, Concreteness, and Abstraction Scores on 15 Proverbs

<table>
<thead>
<tr>
<th>Variable</th>
<th>Schizophrenics</th>
<th>Normal subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gorham’s concreteness*</td>
<td>9.68</td>
<td>2.10</td>
</tr>
<tr>
<td>Literalness</td>
<td>7.65</td>
<td>1.34</td>
</tr>
<tr>
<td>Gorham’s abstraction</td>
<td>6.53</td>
<td>17.51</td>
</tr>
</tbody>
</table>

*The concreteness values for the (0, 1) Gorham system have been doubled to make them comparable to the (0, 1, 2) values for literalness.

Use of the Scoring Scheme with Clinical Groups

Forms II and III of the Gorham Proverbs Test were administered to 77 schizophrenics and 38 firefighters. A brief verbal IQ test consisting of the Comprehension, Vocabulary, and Similarities subtests of the Wechsler Adult Intelligence Scale was also given to these schizophrenics. The firefighters cannot be viewed as control subjects for the schizophrenics because of the lack of full information on their demographic characteristics. The firefighters’ data do, however, provide some information on literalness scores of normal subjects.

Mean age of the schizophrenic sample was 37.3 years (SD = 10.2), mean years of education was 11.7 (SD = 3.3), and mean score on the Hollingshead Index of Social Position was 47.2 (SD = 15.2). Mean prorated verbal IQ on the brief intelligence test was 92.5 (SD = 18.0). Sixty-two percent of the sample was male, 38% was female. Ninety-five percent was white, 5% was black. Mean score on the Phillips Scale of Premorbid Adjustment was 17.7 (SD = 4.4). Mean length of hospitalization was 109.6 months (SD = 109.9).

All firefighters were white males. Assuming that the average firefighter receives a high school diploma, their average score on the Hollingshead index would be 51.0. No information on the age, IQ, or marital status of the firefighters was available.

The Proverbs Test was administered using Gorham’s instructions, and the responses were scored for literalness by the first author and for concreteness using Gorham’s criteria by a graduate student. The scorers were kept blind as to whether a protocol was that of a schizophrenic or a normal subject. To assess interrater reliability, a third scorer rated 40 schizophrenics’ protocols according to both systems. To assess the relationship of adequacy of proverb interpretation to both concreteness and literalness, the graduate student also scored all protocols for abstraction using Gorham’s manual.

Reliability

The coefficient alpha estimate of reliability for the 115 subjects was .85 for literalness, .84 for Gorham’s concreteness, and .92 for Gorham’s abstraction. The corresponding values for the 77 schizophrenics were .82 for literalness, .81 for Gorham’s concreteness, and .92 for Gorham’s abstraction. The correlation between concreteness and literalness was .80 for both groups combined and .74 for the schizophrenics. Interrater reliability for the 40 subjects was .90 for both concreteness and literalness.

Relation to Clinical Status

Table 1 gives the mean scores of both groups according to both scoring systems. As seen in Table 1, both groups received lower scores on literalness than on Gorham’s concreteness. Schizophrenics were significantly different from normal subjects on literalness, concreteness, and abstraction (p < .001, in each case).

Relation to Intelligence and to Abstraction Score

For the schizophrenics, Verbal IQ correlated −.52 (p < .01) with concreteness but only...
...-.15 (ns) with literalness. Thus literalness is less affected than concreteness by sheer intellectual ability. We interpret these values to mean that literalness is less affected than concreteness by generalized deficit. The relation of score on abstraction to literalness and to concreteness lends further support to this interpretation. For the schizophrenics, abstraction correlated -.64 with Gorham concreteness and -.48 with literalness. Thus abstraction accounted for 41% of the variance of concreteness but only 23% of the variance of literalness. Both correlations were inflated by the fact that concreteness and literalness were obtained from the same responses as abstraction, but this artifact should not affect the correlation for literalness any differently than the correlation for concreteness. The difference between the two correlation coefficients was significant, t(74) = 2.61, p < .01, as indicated by a t test for correlations based on dependent data. For the combined group of normal and schizophrenic subjects, abstraction correlated -.73 with concreteness and -.62 with literalness. Thus abstraction accounted for 53% of the variance of concreteness and 38% of the variance of literalness. The difference between the two correlation coefficients was, again, significant, t(112) = 2.65, p < .01.

Conclusion

Literalness of proverb interpretation is less affected by intelligence and by ability to respond abstractly than is Gorham's concreteness. Concreteness depends too much on generalized intellectual deficit to be maximally useful for describing schizophrenic thought disorder. Literalness is an important and more specific kind of error than concreteness and is less affected than concreteness by generalized deficit. The present scoring scheme for literalness should be useful in many situations in which Gorham's concreteness has been used in the past.

Reference Note


References

Gorham, D. R. Clinical manual for the Proverbs Test. Missoula, Mont.: Psychological Test Specialists, 1956. (a)
Gorham, D. R. A proverbs test for clinical and experimental use. Psychological Reports, 1956, 2, 1-12. (b)

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