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Does the Twenty Statements Test Elicit Self-Concept Aspects that are Most Descriptive?

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The Twenty Statements Test (TST) is widely used in cross-cultural psychology to elicit descriptions of the self-concept through free-format responses. This study examines whether the TST elicits descriptors that are most descriptive of the self-concept. Members of four ethnic groups in the United States participated, to assess the generalizability of the obtained patterns. Participants generated self-descriptions for the actual, ideal, and ought selves, then rated each description for its descriptiveness. Although a large proportion of self-descriptions were rated as "extremely descriptive," some participants did not use the "extremely descriptive" rating for any of the descriptions they generated. Results suggest that descriptors generated earlier in the sequence are most descriptive, as are those generated in the actual self measure. The ratings of the extent of descriptiveness of the responses did not vary across four ethnic groups in the United States. These results are discussed in terms of the interpretation of TST-generated self-descriptions in cross-cultural research and other potential factors that influence which descriptors are elicited.

1. INTRODUCTION

The Twenty Statements Test (TST; Kuhn and McPartland 1954) was developed in an attempt to operationalize key concepts of interactionist theory, and has since been used successfully in many studies to identify contents of the self-concept. As a result of the ability of the TST to provide a direct measure of an individual's self-concept and its ease of use, the measure has been utilized in many studies.

The TST has been used to examine ethnic differences in self-concept (e.g., Beglis and Sheikh 1974; Loomis 1974; McRoy, Zurcher, Landerdale and Anderson 1982), gender differences in self-concept (e.g., Gigy 1980; Grace and Cramer 2002), generational and birth-order effects on self-concept (e.g., Bigner 1971; Lund, Caserta, Dimond, and Gray 1986; Montemayer and Eisen 1977; Noppe 1983), and cultural effects on individual self-concept (e.g., Bond and Cheung 1983; Watkins et al. 1998).

The TST has been shown to be especially useful for cross-cultural comparisons, as the format is more easily understood across a variety of cultures than other types of measures. Ratings or rankings may be less familiar to participants from some cultures than from others (Peng, Nisbett, and Wong 1997), and descriptors provided by the researchers may be irrelevant or non-comparable in the cultures under investigation (Poortinga 1989). As a result of these advantages, the TST provides a powerful tool for cross-cultural researchers to explore the self-concept of individuals from varying cultures.

Researchers are also able to use the TST to classify the elicited self-descriptions to ascertain which categories of self-concept (e.g., traits, roles) are more frequently generated within a group or associated with particular variable within the group (e.g., Carpenter and Radhakrishnan 2000; Coover and Murphy 2000; Wang, Leichtman, and White 1998) or to

make comparisons of the relative frequency of categories of self-descriptions between cultures (e.g., Bochner,1994; Bond and Cheung 1983; Cousins 1989; Dhawan et al. 1995; Driver and Driver 1983; Ip and Bond 1995; Rhee, Uleman, Lee, and Roman 1995; Watkins et al. 1998). Few studies, however, have focused on identifying the mechanism(s) that are engaged while participants are generating self-descriptors, although some research has provided preliminary information (Kihlstrom and Cantor 1984).

In response to the "I am…" format, participants may generate descriptions that have a high probability value. That is, participants may generate roles or feelings that occur frequently or generate descriptors of their traits or skills that are more extreme than is typical for the reference group. Such traits may also be important to the self-concept, but as indicated by Kihlstrom and Cantor (1984), it is useful to consider descriptiveness and importance to be independent aspects of self-concept descriptors.

An example of the difference between level of descriptiveness and importance as indicated by the TST follows: a women who considers herself as average in attractiveness (giving herself a moderate rating for that attribute) may consider attractiveness to be a very important characteristic in her self-concept, *if* she aspires to be a great beauty. Conversely, a woman who is very attractive may not consider her physical appearance to be a central and important aspect of her self-concept. Although the importance and descriptiveness of self-aspects may be related, these should be maintained as theoretically independent constructs in research. The purpose of the present study is to investigate whether participants tend to generate the *most descriptive* aspects of the self in response to the TST. Of course, variability is expected in any measurement, but the extent of variability in descriptiveness using the TST has not been previously documented.

Members from four ethnic groups in the United States participated, to ascertain the generalizability of the obtained patterns and the influence that ethnicity might have on elicited descriptors. Each description generated by participants in response to the TST, should, by definition, be self-descriptive. However, the extent of descriptiveness may not be the only factor influencing participants' responses. It was hypothesized that the participants from more collectivist cultures (i.e., Mexican Nationals and Mexican Americans) would have significantly lower levels of discord in the ratings of the elicited actual self descriptors and the descriptors elicited for the ought self measure. Individuals from collectivist cultures generally place greater value on community and less value on self. For the collectivists in our sample, compared to individualists, we expected that smaller differences would exist between the descriptiveness ratings of attributes the individuals feel they actually possess and the attributes they believe that others feel they should possess. Participants were considered collectivist if they were Mexican Nationals and individualists if they were Caucasian. To verify the veracity of this assumption about our sample, participants completed a measure of allocentrism (an individual difference measure of collectivism).

In order to do so, we asked participants to respond to the normal TST format, but also asked participants to rate the descriptiveness of each aspect that they generated. To evaluate the validity of these descriptiveness ratings, we built in two mechanisms. First, in addition to the

typical format of the TST, which asks respondents to list current (actual) self aspects, we also asked participants to describe their "ideal selves" and "ought selves," as conceptualized by self-discrepancy theory (Higgins 1987). The ideal self is one's representation of the attributes that someone (either oneself or another) hopes or aspires to; and the ought self refers to the attributes that someone (oneself or another) believes one should possess. Two types of standpoints on the individual self are also outlined by Higgins – one's own personal standpoint and the standpoint of a significant other (e. g., spouse, parents, friends). We asked participants to also list who they would ideally like to be (i.e., ideal self, personal standpoint) and who significant others believe they ought to be (i.e., ought self, others' standpoint). We expected that the attributes of the ideal and ought selves would be rated, overall, as less descriptive than the characteristics elicited for the actual self. This would be expected because all attributes of the actual self should be descriptive, whereas only a subset of attributes of the ideal and ought selves should be descriptive. Obtaining this predicted pattern of descriptiveness ratings would provide evidence of the descriptiveness ratings as being a valid measure of the construct.

A second mechanism for assessing the validity of the descriptiveness ratings was to examine order effects. It was hypothesized that the attributes generated earlier in the sequence would be rated as more descriptive by participants. That is, participants may exhaust the set of characteristics that are highly descriptive early in the listing process. Although previous research (Radhakrishnan and Chan 1997) has requested that participants list their own goals and the goals others have of them, in order of importance, a gap exists in the literature with regards to the cognitive processes that are engaged when completing a self-descriptive, open-response format, such as the TST. Our goal was to first examine the validity of the assessment of descriptiveness using both mechanisms. If the measurement proved to be valid, we would then test whether the *extent of descriptiveness* is the definitive factor impacting TST responses.[1]

2. METHOD

College students from state universities in the southwest and southeast United States participated in return for psychology course credit. Seventeen participants were Black (10 women and 7 men), 39 were White (24 women and 15 men), 35 were Mexican Nationals (21 women and 14 men), and 29 were Mexican American (17women and 12 men). Their mean age was 21.24 ($SD = 5.18$). These sample sizes proportionally represent the population at the universities the students attended. Only two Asian American students participated in this study and, as a result, proper ethnic comparisons could not be made using their data. Consequently, those data were excluded from analysis. All students had adequate knowledge of English to enroll in courses taught only in English. Thus, the TST was administered in English to all participants.

Participants were asked to complete the TST three times. Participants first generated descriptors for the actual self, then the ideal self, and finally the ought self. To reduce the likelihood of participant fatigue (or disinterest) across these three surveys, we asked the participants to complete 15-item versions of the TST. Although the TST is commonly

administered with twenty response spaces, research has shown the TST may be more effective with as few as 7 or 10 responses (Nudelman 1973; Watkins, Yau, Dahlin and Wondimu 1997). After generating all the self-descriptors, the students rated each characteristic in terms of its descriptiveness on a 4-point scale: 1 indicated "minimally descriptive," 2 indicated "somewhat descriptive," 3 indicated "considerably descriptive," and 4 indicated "extremely descriptive." It should be noted that not all participants elicited 15 descriptors for each TST or labeled each descriptor for level of descriptiveness, such that sample sizes differ slightly across the three types of self being assessed. Participants also completed the Singelis scale (1994) to allow for a measure and comparison of allocentrism among participants. Participants then provided demographic information.

3. RESULTS

Frequencies for each of the levels of descriptiveness are illustrated in Table 1. It should be noted that not all participants elicited 15 descriptors for each TST. Additionally, not all participants labeled each descriptor with a descriptiveness rating and therefore differences in sample size are noted. For purposes of analyses, the elicited items for each questionnaire were divided into three series: first series (attributes 1 – 5), second series (attributes 6 – 10) and third series (attributes 11 – 15) to test for order effects in descriptiveness. The variable of interest was the descriptiveness rating attributed to elicited attributes across series and test type (actual, ideal, ought).

Table 1. Frequencies of Self-Descriptors Rated at each Level of Descriptiveness

Level of Descriptiveness	Range of Frequencies	Total	Cumulative Frequency
Minimally	0 – 5	515 (9%)	9
Somewhat	0 – 8	1,072 (19%)	28
Considerably	0 – 10	2,089 (37%)	65
Extremely	0 – 15	1,945 (35%)	100
Total		5,621	

Note: Participants were asked to generate a total of 60 descriptors (15 descriptors on each of three measures); however some participants generated fewer descriptors.

A 2 (gender) x 4 (ethnicity: Black, White, Mexican American, Mexican National) x 3 (test: actual self, ideal self, ought self) x 3 (series: first, second, third) mixed ANOVA was conducted. Gender and ethnicity were included as between subjects variables; series and test were within subjects variables. A significant main effect was found for test type, $F(2, 200) = 25.28$, $p < 0.001$. The series in which the responses were generated also yielded a significant main effect, $F(2, 200) = 4.50$, $p < 0.01$. These main effects were qualified by a significant interaction between series and test type, $F(4, 400) = 2.38$, $p = 0.51$.

Validation of Descriptiveness Measure

Planned comparisons were conducted to evaluate which test type elicited responses that were labeled as most descriptive. Table 2 presents the mean scores and standard deviations for

each test type and series in which responses were generated. As expected, in the actual self measure, regardless of series, items elicited were labeled as significantly more descriptive than those in the ought self measure, t (126) = 6.82, $p < 0.01$, and those in the ideal self measure, t (127) = 8.18, $p < 0.01$. The comparison of the ideal self and ought self measures also yielded a significant difference, with the ideal self being labeled as more descriptive than the ought, t (126) = -2.50, $p < 0.01$.

Table 2. Means and Standard Deviations of Descriptiveness Ratings by Series and Test

Order	Mean			Standard Deviation		
	Actual	Ideal	Ought	Actual	Ideal	Ought
First	3.29_{a1}	2.72_{a2}	2.86_{a3}	0.50	0.80	0.75
Second	3.20_{b1}	2.67_{a2}	2.86_{a3}	0.45	0.81	0.79
Third	3.12_{b1}	2.64_{a2}	2.53_{b2}	0.54	0.89	1.04

Note. Within rows means with different numeric subscripts differ from each other at the $p < 0.05$ level. Within columns means with different letter subscripts differ from each other at the $p < 0.05$ level.

A second set of planned comparisons was conducted to investigate the effect of series on descriptiveness ratings. We expected that attributes generated earlier in the sequence would be rated as significantly more descriptive than those generated later in the series. The obtained results confirmed our prediction. As is illustrated in Table 2, items elicited in the first series were labeled as more descriptive than those in the later series. The first series of elicited descriptors, in comparison with the third, shows a significant difference, t (129) = 3.87, $p < 0.01$, and a comparison between the second and third series also yields significant differences, t (129) = 3.56, $p < 0.01$. The first and second series, however, are not significantly different from one another, t (129) = 1.50, $p = 0.13$. The combined results confirm that those items in the earlier series (series 1 and 2) are labeled as significantly more descriptive than those in the later series (series 3).

An interaction between test type and series was also noted. Table 2 illustrates these findings. Paired samples t-tests were conducted to explore this interaction. A Bonferroni adjustment of $p = 0.002$ per test (0.05/18) was used for the probability level. In the actual self measure, items elicited in the first sequence were rated as significantly more descriptive than the second series, t (128) = 2.15, $p < 0.05$, as well as the third series, t (128) = 3.57, $p < 0.01$. Similarly, in the ought self measure the first series was labeled as significantly more descriptive than the third, t (118) = 2.08, $p < 0.01$. The ought self measure also yielded a significant difference between the second and third series, t (118) = 3.42, $p < 0.01$. However, there were no significant series effects for the ideal self measure, t (123) < 1.0.

The measure of descriptiveness related to the attributes of self that were elicited through the TST therefore appears to be valid. As shown in Table 1, as many as 28% of the descriptors were considered to be only minimally or somewhat descriptive of themselves. And only 35% of the descriptors were rated as extremely descriptive.

Cultural Comparisons

We predicted that individuals from more collectivist cultures (in our sample, Mexican National participants) would have higher descriptiveness ratings for ought self-descriptors than those from individualist cultures (the White participants, in our sample). However, the expected interaction between ethnicity and test type was not obtained, $F (6, 214) < 1.0$. To investigate this unexpected result, the allocentrism scores were analyzed; an ANOVA was conducted with ethnicity as the independent variable and allocentrism scores as the dependant variable. There were no mean differences between the allocentrism scores of the four ethnic groups, $F (3, 116) = 1.62$, $p = 0.19$. Therefore, for this sample, no differences were noted in the level of allocentrism of participants from a collectivistic culture and those from an individualistic culture.

An unexpected interaction between gender and series was noted, $F (2, 200) = 1.861$, $p < 0.05$. Paired samples t-tests, with a Bonferroni correction for the probability level (0.05/6 = 0.008), were used to explore the interaction. As depicted in Table 3, the descriptiveness of the first series of characteristics differed significantly from the third series for male participants, $t (51) = 3.86$, $p < 0.008$, as did the second series from the third series, t (51) = 3.29, p < 0.008. However, for female participants, no significant differences were observed between any of the series.

Table 3. Means and Standard Deviations of Descriptiveness Ratings by Gender and Series

Series	Mean		Standard Deviation	
	Female	Male	Female	Male
First	2.91_a	3.02_a	0.42	0.54
Second	2.90_a	2.93_a	0.46	0.43
Third	2.81_a	2.70_b	0.52	0.63

Note. Within columns, means with different subscripts differ from each other at the p< 0.05 level.

4. DISCUSSION

The purpose of this research was to address a portion of the question: When participants generate spontaneous self-descriptors, which cognitive processes are at work? This study focused on whether participants generate descriptions that are highly self-descriptive when they respond to an open-response, self-description format, such as the TST. The obtained answer is that approximately one-third of such descriptors were rated as "extremely" descriptive, and approximately half of the elicited descriptors are considered "slightly" or "somewhat" descriptive. Descriptiveness was clearly shown not to be the only cognitive influence on self-descriptor generation.

The role of chronic accessibility in eliciting and labeling descriptors for level of descriptiveness must be considered. The ratings for descriptors elicited in the actual self measure were significantly more descriptive than either other measure. When participants are asked to consider those things that actually describe themselves, it stands to reason that

those characteristics which are most frequently encountered in their daily lives will be those that are most accessible when completing an open-response survey such as the TST. This pattern shows the validity of the ratings of descriptiveness in the actual self measure.

Ethnicity was not shown to have differentially influenced the descriptiveness of the attributes elicited. The results of this study may therefore be generalizable, at least with respect to populations in the United States. Collectivism was hypothesized as the variable that would differentiate between the self-concept of the ethnic groups studied. An individual difference measure of collectivism, allocentrism, however, indicated no differences in collectivism actually exist between the ethnic participants in our sample. However, if differences between cultures are due to some other cognitive mechanisms, then other measurements, or an altered TST format, that takes these factors into consideration may be advisable. The most typical way that TST data are quantified, analyzed, and reported are with respect to the categories of attributes elicited. The interpretation of such data should be guarded, unless a specific mechanism, such as context, is also measured in the research. Identification of such mechanisms is important if the goal of research is to understand and explain, rather than merely document, cultural differences. In fact, a large number of cross-cultural and demographic studies can be criticized as inadequate because they fail to identify or measure those aspects of culture (or demography) that are responsible for the observed differences (Betancourt and Lopez 1993). Thus, the research evidence relevant to the processes by which self-descriptors are elicited now indicates that neither importance (Trafimow and Finlay 2001) nor descriptiveness (this study), alone, can account for the self-descriptors generated.

The self-concept is malleable, in the sense that different components of the self can be salient at different times (Markus and Kunda 1986). First, the immediate context can influence which types of descriptors are elicited. McGuire and colleagues (1978) have shown that children's ethnicities are more likely to be elicited using the TST when the ethnicity of the children is in the minority. In cross-cultural research, Cousins (1989) found that Americans generated more traits using the typical TST format, whereas Indians generated more traits when the TST was modified to include context (e.g., at home, at school). Additionally, priming the collective or individual self-concept can affect the types of descriptors generated (Gardner, Gabriel, and Yee 1999; Trafimow, Triandis, and Goto 1991). The potential impact of context on the descriptors elicited should be explored in future research.

Series effects in evaluating the TST yielded interesting results. We expected that those attributes elicited earlier in the series would be labeled as more descriptive than those later in the series in each measure. This was the case for both the actual and ought selves, but not for the ideal self measure. Items elicited in the actual self measure are reflective of the individuals *current* self, and perhaps the items elicited in the ought self measure are reflective of the attributes the individual may be close to attaining. But, we speculate that most of the descriptors generated for the ideal self were not yet actualized. That is, once an ideal is actualized, it becomes a component of the actual self.

The question remains: Which cognitive processes influence the descriptors that are elicited in a self-description task such as the TST? While descriptiveness is one component, the relative importance of characteristics of the self should also be influenced by culture, as cultures differ in their values and norms (Schwartz 1994). Chronic accessibility might then be related to the importance of self-characteristics. This relation between accessibility and importance, however, has been found to be weak in previous research (Trafimow and Finlay 2001). In the current research, the rated importance of descriptors was only minimally related with the accessibility of the descriptors (as measured through the order of generation).

In summary, the research on possible mechanisms to account for between-group differences in the descriptors elicited by the TST shows that neither *descriptiveness* (this study) nor *importance* (Trafimow and Finlay 2001) of the various components of the self can fully account for the self-descriptors generated by participants. *Chronic accessibility* of characteristics and *contextual salience* are both possible mechanisms for explaining between-group differences, but little research has explored these mechanisms of between-group differences in the generation of self-descriptors for the TST. Future research could investigate these potential influences, as well as examining the combined effects of variables such as importance, descriptiveness, chronic accessibility, and contextual salience.

5. NOTE

1. Research using the TST typically reports the relative frequencies of different categories of responses (e.g., number of qualifiers used). As that is not the purpose of the current research, these data are not reported.

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