MEASURING DISPOSITIONAL HUMILITY: A FIRST APPROXIMATION^{1, 2, 3}

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Summary.—Humility is a psychological construct that has not received much empirical attention until recently. This new emphasis on positive psychology and humility has been both conceptual and empirical. The present study had two objectives: to review the literature briefly to verify the importance of humility and its positive perception by others, and to begin to develop a preliminary measure of humility. Results indicated that humility is held in high regard by others. Two factors emerged from exploratory factor analysis that appear to converge on measuring humility, with acceptable convergent and divergent validity and internal consistency reliability. These results are discussed in terms of the expected relationships among humility and other constructs (e.g., social desirability, narcissism, self-esteem).

The concept of humility is not new, but research efforts to define and understand it are. With regard to a conceptual and psychological approach to studying humility, Tangney (2000) pointed to discrepancies among psychologists' conceptualization of humility and the dictionary definition. Tangney's review (2000) described psychologists' definition as: (a) accurate assessment of one's abilities and achievements, (b) ability to acknowledge one's mistakes, imperfections, gaps in knowledge, and limitations, (c) openness to new ideas, contradictory information, and advice, (d) keeping one's abilities and accomplishments (one's place in the world) in perspective, (e) relatively low self-focus, a "forgetting of the self," while recognizing that one is but one part of the larger universe, and (f) appreciation of the value of all things, as well as the many different ways that people and things can contribute to the world (pp. 73-74). Tangney (2002) suggested that the absence of empirical work regarding humility may be

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¹Address correspondence to Eric Landrum, Department of Psychology, Boise State University, 1910 University Drive, MS 1715, Boise, ID 83725–1715 or e-mail (elandru@boisestate.edu). ²The author appreciates an inspiration for the present study. On two occasions (Landrum 1999, 2002a), I had the opportunity to study the life of Wilbert J. (Bill) McKeachie of the Department of Psychology at the University of Michigan and to offer biographical glimpses of his impact on the teaching of psychology. McKeachie is the personification of Tangney's key elements of humility (2000). When I have discussed this topic with him, he has always deflected the attention away from himself and focused on the interesting challenges of research in this area. This behavior fits well with Singh's observation (1967; as cited in Tangney, 2000, p. 78) that "the truly humble man never knows that he is humble."

³The author also wishes to acknowledge the assistance of Lisa Nelsen, Heather Bauer (Witt), and Cathi Bradley for their help in both the conceptual development and the implementation of the pilot studies.

due to the lack of a measure. To examine the relationship among humility and behavior, the goal of the present study was to develop and test a measure of dispositional (trait) humility.

Exline and Geyer (2004) reported that humility is usually viewed positively. When asked to recall humbling situations, individuals often reported successful experiences and reported that humility was associated with healthy adjustment. Research by Rowatt, Powers, Targhetta, Comer, Kennedy, and Labouff (2006) presented humility-related concepts (humble, modest, tolerant, down-to-earth, respectful, open-minded) and arrogance-related concepts (arrogant, egotistical, high-and-mighty, closedminded, conceited) in a reaction time task using implicit association methods (Greenwald, McGhee, & Schwartz, 1998). Results indicated that when participants pair each attribute with self or other, "people who possess humility are expected to associate humility-related concepts with the self more quickly than arrogance-related concepts" (Rowatt, et al., 2006, p. 200). They concluded that humility could be measured reliably using this indirect reaction time measure. Recent work also examines humility and cultural competence (Kumas-Tan, Beagan, Loppie, MacLeod, & Frank, 2007), a measure of servant leadership (Dennis & Bocarnea, 2005), and the development of an honesty-humility subscale (Boies, Yoo, Ebacher, Lee, & Ashton, 2004). The motivation for the present study was to begin to develop a psychometrically sound measure of dispositional humility.

Метнор

Pilot Work

Prior to the development of a humility measure, pilot testing on the benefits and costs of humble behavior, parental transmission of humility traits to children, and social implications and influences of humble behavior was conducted (Bauer, Nelsen, Bradley, & Landrum, 2002; Bradley, Bauer, Nelsen, & Landrum, 2002; Landrum, 2002a; Nelsen, Bradley, Bauer, & Landrum, 2002). The current study was based on the available literature, pilot testing, and consultation with content experts.

Participants

Undergraduate students (N=341) enrolled at a large, metropolitan university in the Northwest participated in the study for course credit. The mean age was 21.8 yr. (SD=6.1). The sample comprised 232 women (73%) and 86 men (27%); 23 individuals did not report sex. The demographics were 66.5% freshman, 23.5% sophomores, 8.8% juniors, and 1.2% seniors. With regard to ethnicity, 2.5% of the participants were Asian American/Pacific Islander, 0.6% Native American/Alaskan Native, 84.5% White/Caucasian, 0.6% Black/African American, 6.8% Hispanic/Latino, and 5.0% Other (18 participants did not select an ethnic category). Of this

sample, 78.9% reported being never married/single, 15.4% married, and 5.6% divorced.

Materials

All of the original items, generated by the author through reviewing the literature and pilot tests, are presented in Table 1. In addition to

TABLE 1

Means and Standard Deviations for Humility Scale Items
Answered on a Likert-type Response Scale, Sorted by Mean

I like people who	М	SD
are hard workers.	4.5	0.6
have compassion for others.	4.5	0.7
can admit to their mistakes.	4.4	0.5
are generally patient and gentle with others.	4.4	0.6
are smart, but know that they are not all-knowing.	4.3	0.6
understand that everyone has imperfections.	4.3	0.6
are willing to admit when they've made a mistake.	4.3	0.5
are thankful when they get nice things.	4.3	0.6
admit when they are wrong.	4.3	0.5
have an openness to new ideas.	4.3	0.5
can admit their faults/imperfections.	4.3	0.7
are open and flexible.	4.3	0.5
understand the different ways other people contribute to the world.	4.3	0.5
are ambitious.	4.2	0.7
are usually open-minded.	4.2	0.6
are able to admit to others when they are wrong.	4.2	0.7
have an appreciation of the value of all things.	4.2	0.6
are willing to take others' advice and suggestions when given.	4.2	0.5
have the ability to acknowledge mistakes, imperfections, and gaps in		
knowledge.	4.2	0.6
take pride in their accomplishments.	4.1	0.8
are proud when others succeed.	4.1	0.5
take advice from others.	4.0	0.5
are able to keep their abilities and accomplishments in perspective.	4.0	0.6
believe that others helped them get where they are today.	3.9	0.7
listen to contradictory information.	3.9	0.8
are willing to admit their inadequacies.	3.9	0.6
try to keep their accomplishments in perspective.	3.9	0.6
do not feel the need to tell everyone about their achievements.	3.9	0.8
believe others helped them get where they are today.	3.9	0.7
are certain of what they are doing.	3.9	0.6
have humility.	3.8	0.8
worry about the welfare of others before their own welfare.	3.8	0.8
accomplish everything they set out to accomplish.	3.8	0.7
accurately assess one's abilities and achievements.	3.8	0.7
(continued on next page)		

Note.—N=341. Participants responded using the following scale: 1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, and 5=Strongly agree.

TABLE 1 (cont'd) $Means \ and \ Standard \ Deviations \ for \ Humility \ Scale \ Items \\ Answered \ on \ a \ Likert-type \ Response \ Scale, Sorted \ by \ Mean$

I like people who	M	SD
serve others.	3.8	0.9
are more complimentary of others than they are of themselves.	3.7	0.8
are aware of their limitations.	3.7	0.7
are modest.	3.7	0.7
feel special.	3.7	0.7
like when their opinion is challenged.	3.7	0.7
are not intimidating.	3.6	0.8
are very accomplished.	3.6	0.6
believe that true happiness comes from putting other's needs first.	3.5	0.8
think they can learn a lot from me.	3.4	0.7
don't give much thought to where they stand relative to others.	3.3	0.9
see me as modest and unassuming.	3.3	0.8
are shy.	3.2	0.7
hold positions of power.	3.2	0.7
think that true happiness comes from meeting one's own needs.	3.0	0.9
\dots tend to minimize their accomplishments when they are with others.	3.0	0.8
have a hard time speaking in big groups for fear of what they might		
think.	2.8	0.7
are a little over-confident.	2.7	0.8
believe that their success is completely due to their own effort and		
ability.	2.7	1.0
come across as meek or subservient.	2.7	0.8
tend to undervalue their own achievements.	2.7	0.8
compare themselves to others.	2.6	0.7
have a relatively low self-focus.	2.5	0.8
are weak.	2.4	0.8
are not successful.	2.4	0.9
are envious of others' achievements.	2.2	0.9
have low self-regard.	2.1	0.7
are envious of the success of others.	2.1	0.8
tend to undervalue the achievements of others.	2.1	0.7
exaggerate their skills and abilities to others.	2.0	0.8
have low self-esteem.	2.0	0.8
are closed-minded.	1.7	0.6
are jealous of others' achievements.	1.7	0.7
are self-absorbed.	1.6	0.7
are arrogant.	1.6	0.7

Note.-N=341. Participants responded using the following scale: 1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, and 5=Strongly agree.

the original items, a number of established scales were also administered. These scales included the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960; Marlowe & Crowne, 1961), a scale to measure public and private self-consciousness (Fenigstein, Scheier, & Buss, 1975), a measure of self-esteem (Rosenberg, 1965, 1979), a measure of the stability

of self-esteem (Kernis, Cornell, Sun, Berry, & Harlow, 1993), a measure of need for achievement (McClelland, 1961), and the Narcissistic Personality Inventory (Raskin & Hall, 1979, 1981).

An indirect approach to the self-report of humility was determined to be the most appropriate course of action. To ask participants "Are you humble?" or "Do you possess high humility?" might lead participants to fulfill the experimenter's expectancy and provide socially desirable answers. To avoid this approach, an indirect method was utilized. 4 The assumption was made that humble people like other humble people (similar to the assumption that Rowatt, et al., 2006 made: that synonyms for humility would be more quickly associated with "self" than "other"). This assumption has empirical support (Exline & Geyer, 2004). The first set of items (Table 1; n = 69) was answered on a five-point Likert-type response scale anchored by 1: Strongly disagree and 5: Strongly agree, and tapped associated concepts to assess items proposed for a self-report measure of humility. The second set of items (Table 2; n = 18), answered on a Yes/No scale, asked about perceptions of someone with high humility. Responses to these items may replicate and extend Exline and Geyer's results (2004) regarding the positive portrayal of humility.

Procedure

Original survey items, demographic questions, and the questionnaires previously mentioned were compiled into a paper packet. Participants were tested in groups in large classrooms. Participants were given 50 min. to complete the packet, and most participants took nearly the entire time to complete the battery of measures. After completion, participants received course credit and were debriefed as to the nature of the study.

Hypotheses

A priori predictions were made about the expected outcomes of the study. Although convergent validity among humility and other measures (e.g., self-esteem) is expected, there should also be discriminant validity (e.g., with social desirability, narcissism); that is, a humility measure should not correlate or should correlate negatively with constructs believed to be unrelated (see Tangney, 2002, for more on this point). It was hypothesized that the measure of humility would be negatively correlated with narcissism; would be slightly positively correlated with self-esteem; would be negatively correlated with public self-consciousness; would be negatively correlated with the stability of self-esteem measure (a lower score indicates instability); and would not be correlated with social desirability.

⁴Thanks to social psychologist Jamie Goldenberg for this suggestion.

TABLE 2

Means and Standard Deviations For Importance of Humility
Items Answered on a Yes-no Scale, Sorted by Mean

Someone who has high levels of humility	М	SD
knows he/she is smart, but not all knowing.	0.87	0.3
has the ability to acknowledge one's mistakes and limitations.	0.86	0.3
keeps his/her talents and accomplishments in perspective.	0.85	0.3
has an appreciation of value in all things.	0.85	0.3
has an open and receptive mind.	0.84	0.3
has a sense of self-acceptance.	0.83	0.3
has an accurate opinion of oneself.	0.74	0.4
is meek or modest.	0.73	0.4
is free from arrogance.	0.54	0.4
is free from low self-esteem.	0.44	0.4
has very little pride.	0.34	0.4
has low self-esteem.	0.18	0.3
has no understanding of one's imperfections.	0.17	0.3
tends to overemphasize the importance of his/her own		
accomplishments.	0.17	0.3
is low in rank and station.	0.15	0.3
is closed-minded and shallow.	0.12	0.3
acts like he/she is the center of universe.	0.11	0.3
is of little worth.	0.09	0.2

Note. -N = 341. Participants responded using the scale values 1 = Yes and 0 = No.

Analyses

The items presented in Table 1 were developed as a self-report measure of humility. Responses to these items were subjected to an exploratory factor analysis. Factors were extracted using a varimax rotation, with criteria that eigenvalues be greater than 2.0, and factor loadings greater than .50. The data were examined with respect to the assumptions (Tabachnick & Fidell, 2007) for adequate exploratory factor analysis. With N = 341, there were sufficient data for exploratory factory analysis (Ns>300 are desired). Regarding missing data, of the 33 items retained from the six factors extracted from the exploratory factor analysis, 8 missing observations were the highest number observed for any single item, or 2.3% of responses. Potential outliers were examined using Mahalanobis distances (p<.005), using the χ^2 criterion for df=33. Under these conditions, an outlier would require $\chi^2 > 57.60$; none of the 341 scored higher (the highest Mahalanobis distance value observed was 23.91). Singularity (redundant variables) and multicollinearity (highly correlated independent variables) are characteristics to be avoided or minimized in exploratory factor analysis. The highest multiple correlation for the 33 variables analyzed here was .62, indicating no singularity or serious multicollinearity.

For these same 33 variables retained from the exploratory factor analysis, none of the variables was significantly skewed. Significance was de-

termined by dividing the skewness value by the standard error of skewness, and if this result was greater than 3.29, the variable was determined to be significantly skewed (Tabachnick & Fidell, 2007). The same criterion was used for kurtosis statistics as well, with 13 variables having significant positive kurtosis (leptokurtic) and 20 variables with nonsignificant, mesokurtic distributions. Eight of the 12 items loading on Factor 1 were leptokurtic, and three of the five items loading on Factor 5 were leptokurtic; future research will need to explore the effect of this variability in distributions to determine its impact, if any, on psychometric efficacy. Regarding linear relationships, a spot-check inspection of scatter plots was done (every pairwise comparison would require over 500 scatter-plot inspections). Comparison of the responses to the items "I like people who admit when they are wrong" and "I like people who are open and flexible" yielded a bivariate scatter plot with high linearity and approaching an oval-shaped distribution, which is an indicator of normal distribution and linearity (Tabachnick & Fidell, 2007).

Results

General Importance of Humility

One set of items (*n*=18) administered to participants consited of yes/ no questions about the characteristics of someone who possesses humility. These items and their corresponding means and standard deviations are presented in Table 2. These results show good concordance with previous pilot work (Landrum, 2002a), as well as Exline and Geyer (2004), namely, that humility seems to be highly valued. For each of the following statements (which were preceded by the statement "Someone with high humility..."), the percent of respondents answering "yes" is presented in parentheses: "knows he/she is smart, but not all-knowing" (87%); "has the ability to acknowledge one's mistakes and imperfections" (86%); "keeps his/her talents and accomplishments in perspective" (85%); "has an appreciation of value in all things" (85%); "has an open and receptive mind" (84%); and "has a sense of self-acceptance" (83%).

Factor Analytic Outcomes

The outcomes of the exploratory factor analysis yielded six factors, explaining 38.2% of the variance. The six factors with factor loadings are presented in Table 3. Factor 1 may comprise one component of humility (12 items; variance explained = 17.26%; Cronbach's α = .87). First, the items that load on this factor correspond closely with the components of humility suggested by Tangney (2000, 2002). Second, these items loaded together (Table 3) when participants were asked to identify the characteristics of someone who possesses high humility. Factor 1 scores were calculated for each participant (with the item "closed-minded" reverse-scored) by taking the mean of the 12 items.

 $\label{thm:table 3} \mbox{Factor Analysis Outcomes (Factor Loadings) For Humility Scale Items}$

Item	Factor					
	1	2	3	4	5	6
are willing to admit when they've made a mistake.	.78					
can admit to their mistakes.	.72					
admit when they are wrong.	.72					
are able to admit to others when they are wrong.	.69					
have the ability to acknowledge mistakes,						
imperfections, and gaps in knowledge.	.66					
are open and flexible.	.63					
are willing to take others' advice and suggestions						
when given.	.60					
can admit their faults/imperfections.	.59					
have an openness to new ideas.	.53					
have compassion for others.	.51					
are smart, but know that they are not all-knowing.	.50					
are closed-minded.	50					
are weak.		.72				
have low self-regard.		.68				
have low self-esteem.		.67				
are not successful.		.62				
have a hard time speaking in big groups for fear of what they might think.		.54				
are shy.		.51				
come across as meek or subservient.		.51				
are envious of others' achievements.			.74			
are envious of the success of others.			.73			
are jealous of others' achievements.			.69			
are arrogant.			.55			
are modest.				.78		
see me as modest and unassuming.				.59		
try to keep their accomplishments in perspective.					.67	
accurately assess one's abilities and achievements.					.55	
are aware of their limitations.					.55	
are willing to admit their inadequacies.					.50	
are able to keep their abilities and accomplish-						
ments in perspective.					.50	
accomplish everything they set out to accomplish.						.5
are very accomplished.						.5
are certain of what they are doing.						.53

Note.—N = 341. Each item began with the stem "I like people who ..."

Factor 2 appears to be a depiction of the opposite of humility, with seven items loading on this factor (percent of variance explained = 6.68%; Cronbach's α = .76). Factor 3 appears to address issues of envy and jealousy, with four items loading on this factor (percent variance explained = 4.58%; Cronbach's α = .73). Factor 4 concerns modesty, with two items loading on

this factor (percent of variance explained = 3.72%; Cronbach's α = .61). Factor 5 also appears to be related to the humility construct, focusing on an accurate self-perspective with five items loading on this factor (percent variance explained = 3.09%; Cronbach's α = .68). Factor 5 scores were calculated for each participant by taking the mean of the five items. Finally, Factor 6 depicts self-confidence with three items loading on this factor (percent variance explained = 2.94%; Cronbach's α = .57).

The scores of these six factors are related to one another and to other external measures in a predictable manner. Factor 1 (the primary factor of interest here due to the highest amount of variance explained) correlated significantly with all five other factors; the highest correlation was among Factor 1 and Factor 5, accurate self-perspective (r_{339} = .52, p < .001; 95% $CI = .44 \le \rho \le .59$). Factor 2, the opposite of humility, was most closely associated with Narcissism scores ($r_{339} = -.21$, p < .001; 95% $CI = -.31 \le \rho \le -.11$). Scores on Factor 3, envy and jealousy, were significantly positively correlated with Narcissism scores ($r_{339} = .17$, p = .001; $95\%CI = .07 \le \rho \le .27$). Factor 4, modesty, was most closely associated with Social Desirability scores (r_{337} = .11, p = .041; 95%CI = .00 $\leq \rho \leq$.22). Factor 5, accurate self-perception, was significantly positively correlated with Need for Achievement $(r_{339} = .24, p < .001; 95\%CI = .14 \le \rho \le .34)$. Factor 6, self-confidence, was significantly positively correlated with both Need for Achievement scores (r_{339} = .22, p < .001; 95%CI = .12 \leq $p\leq$.32) and with Narcissism scores $(r_{339} = .22, p < .001; 95\%CI = .12 \le \rho \le .32).$

Because of the *a priori* emphasis on development of a measure of humility, all subsequent efforts here focused on the measures extracted from the factor analytic outcomes (Factors 1 and 5) believed to represent the content of humility.

Relationships of Humility Scores and Other Measures

New scales need multiple types of evidence to show validity and reliability—these results indicate good initial validity and reliability. In addition, it is important to assess the theorized relationships of the new scale with existing scales. In addition to the original items devoted to humility and the demographic questions, measures of social desirability, public and private self-consciousness, self-esteem, stability of self-esteem, need for achievement, and narcissism were administered to participants.

Factor 1 scores were significantly and positively correlated with (a) the private self-consciousness subscale score (r_{339} = .20, p < .001; 95%CI = .10 $\leq \rho \leq$.30), the self-esteem score (r_{339} = .15, p = .005; 95%CI = .05 $\leq \rho \leq$.25), and the need for achievement score (r_{339} = .13, p = .014; 95%CI = .03 $\leq \rho \leq$.23). The Factor 1 score was not significantly correlated with the following: the public self-consciousness subscale score (r_{339} = .08, ns; 95%CI = -.03 $\leq \rho \leq$.19), age (r_{317} = .06, ns; 95%CI = -.05 $\leq \rho \leq$.17), social desirability (r_{339} = .04,

ns; $95\%CI = -.07 \le \rho \le .15$), narcissism ($r_{339} = .00$, ns; $95\%CI = -.11 \le \rho \le .11$), the self-consciousness social anxiety subscale score ($r_{339} = -.04$, ns; $95\%CI = -.15 \le \rho \le .07$), and stability of self-esteem ($r_{339} = -.11$, ns; $95\%CI = -.21 \le \rho \le .01$).

Factor 5 scores were significantly and positively correlated with (a) the private self-consciousness subscale score (r_{339} = .17, p = .002; 95%CI = .07 $\leq \rho \leq$.27), (b) the public self-consciousness subscale score (r_{339} = .13, p = .020; 95%CI = .03 $\leq \rho \leq$.23), (c) the narcissism score (r_{339} = .17, p = .002; 95%CI = .07 $\leq \rho \leq$.27), (d) the need for achievement score (r_{339} = .24, p < .001; 95%CI = .14 $\leq \rho \leq$.34), and (e) the self-esteem score (r_{339} = .12, p = .029, 95%CI = .02 $\leq \rho \leq$.22). The Factor 5 score was not significantly correlated with the following: the self-consciousness social anxiety subscale score (r_{339} = -.10, ns; 95%CI = .00 $\leq \rho \leq$.20), the stability of self-esteem (r_{339} = -.04, ns; 95%CI = -.14 $\leq \rho \leq$.07), and the social desirability total score (r_{339} = .07, ns; 95%CI = -.04 $\leq \rho \leq$.18).

Discussion

The results of this study suggest that Factor 1 has good initial validity and internal consistency reliability. Humility was expected not to be correlated with social desirability. This prediction was supported by the results of this study; thus, respondents appeared not to engage in impression management. As expected, there was a nonsignificant correlation between Humility and public self-consciousness, since a person with high public self-consciousness would actively seek to make themselves look good to others. The second prediction was that that humility would not be significantly correlated (or would be negatively correlated) with narcissism, as observed. Tangney (2000) described the relationship between narcissism and humility: "in many respects, narcissists clearly lack humility ... an absence of narcissism can [not] be equated with the presence of humility" (p. 75, italics in original). This conceptualized relationship may help to explain nonsignificant correlation as opposed to a negative correlation.

Humility was expected to be moderately correlated with self-esteem and positively correlated with the need for achievement, which were both observed. In addition to the humble person's traits of willingness to admit to mistakes, acknowledgement of gaps in knowledge, and so on, other components of the humility scale focus on openness, flexibility, compassion for others, and being smart but knowing that one is not all-knowing. If humility and self-esteem were highly, positively correlated with one another, the two scales might be measuring a singular underlying construct.

The pattern of correlations between the dispositional humility and other constructs fits Tangney's predictions (2002). Humility did not correlate significantly with variables that it was expected not to correlate with, lending some initial support to the discriminant validity of the items. Fac-

tor 5 as well as Factor 1 may lead to survey items that adequately capture the construct of humility. The value of developing a dispositional measure of humility will help address research questions such as the relationship between humility and other perceived virtues, possible advantages and disadvantages of humility, and development of humility during the lifespan.

The possibility of self-report bias was tempered by the very low correlation of the scale with the Social Desirability Scale. Theoretically, of course, individuals with high humility would not try to make themselves look good. Ultimately, the goal of a measure is the prediction of behavior. Future research should utilize the Dispositional Humility Scale in relation to actual behavior. For instance, in Rowatt, *et al.* (2006), participants provided Implicit Association Test scores for humility-arrogance, and ratings were also provided by a close friend, romantic partner, or a family member. Future researchers may want to compare the Implicit Association Test methodology or humility with Dispositional Humility Scale scores. The scale does have the advantage of not needing computer administration and scoring, and subscale scores can be easily calculated.

Humility is a psychological construct that is beginning to receive serious attention from researchers in the psychological community. This study provides a first approximation of a psychometrically sound measure of dispositional humility. Better understanding and measurement of humility may assist in the systematic study of how this disposition is related to other personality traits as well as civil and uncivil behavior.

REFERENCES

- Bauer, H., Nelsen, L. R., Bradley, C., & Landrum, R. E. (2002) Humble behavior: benefits vs. individual costs. Poster presented at the Midwestern Psychological Association, Chicago, IL, May.
- Boies, K., Yoo, T-Y., Ebacher, A., Lee, K., & Ashton, M. C. (2004) Psychometric properties of scores on the French and Korean versions of the HEXACO Personality Inventory. *Educational and Psychological Measurement*, 64, 992-1006.
- Bradley, C., Bauer, H., Nelsen, L. R., & Landrum, R. E. (2002) Effects of parental style on the transmission of humility to children. Poster presented at the Midwestern Psychological Association, Chicago, IL, May.
- Crowne, D. P., & Marlowe, D. (1960) A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 24, 349-354.
- Dennis, R. S., & Bocarnea, M. (2005) Development of the servant leadership assessment instrument. *Leadership & Organization Development Journal*, 26, 600-615.
- Exline, J. J., & Geyer, A. L. (2004) Perceptions of humility: a preliminary study. *Self & Identity*, 3, 95-114.
- Fenigstein, A., Scheier, M. F., & Buss, A. H. (1975) Public and private self-consciousness: assessment and theory. *Journal of Consulting and Clinical Psychology*, 43, 522-527.

- Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998) Measuring individual differences in implicit cognition: the Implicit Association Test. *Journal of Personality and Social Psychology*, 85, 1464-1480.
- Kernis, M. H., Cornell, D. P., Sun, C., Berry, A., & Harlow, T. (1993) There's more to self-esteem than whether it is high or low: the importance of stability of self-esteem. *Journal of Personality and Social Psychology*, 65, 1190-1204.
- Kumas-Tan, Z., Beagan, B., Loppie, C., MacLeod, A., & Frank, B. (2007) Measures of cultural competence: examining hidden assumptions. *Academic Medicine*, 82, 548-557.
- Landrum, R. E. (1999) Fifty-plus years as a student-centered teacher: an interview with Wilbert J. McKeachie. *Teaching of Psychology*, 26, 142-146.
- Landrum, R. E. (2002a) Humility: its measurement and impact on person-perception. Paper presented at the Midwestern Psychological Association, Chicago, IL, May.
- LANDRUM, R. E. (2002b) More than just luck: a brief biography of Wilbert J. Mc-Keachie. In S. F. Davis & W. Buskist (Eds.), *The teaching of psychology: essays in honor of Wilbert J. McKeachie and Charles L. Brewer*. Mahwah, NJ: Erlbaum. Pp. 3-13.
- MARLOWE, D., & CROWNE, D. P. (1961) Social desirability and response to perceived situational demands. *Journal of Consulting Psychology*, 25, 109-115.
- McClelland, D. (1961) The achieving society. Princeton, NJ: Van Nostrand.
- Nelsen, L. R., Bradley, C., Bauer, H., & Landrum, R. E. (2002) Personality traits associated with humility: social implications. Poster presented at the Midwestern Psychological Association, Chicago, IL, May.
- Raskin, R. N., & Hall, C. S. (1979) A narcissistic personality inventory. *Psychological Reports*, 45, 590.
- RASKIN, R. N., & HALL, C. S. (1981) The Narcissistic Personality Inventory: alternative form reliability and further evidence of construct validity. *Journal of Personality Assessment*, 53, 66-80.
- Rosenberg, M. (1965) Society and the adolescent self-image. Princeton, NJ: Princeton Univer. Press.
- Rosenberg, M. (1979) Conceiving the self. New York: Basic Books.
- ROWATT, W. C., POWERS, C., TARGHETTA, V., COMER, J., KENNEDY, S., & LABOUFF, J. (2006) Development and initial validation of an implicit measure of humility relative to arrogance. *The Journal of Positive Psychology*, 1, 198-211.
- Таваснік, В. G., & Fidell, L. S. (2007) Using multivariate analysis. (5th ed.) Boston, MA: Pearson/Allyn & Bacon.
- Tangney, J. P. (2000) Humility: theoretical perspectives, empirical findings and directions for future research. *Journal of Social and Clinical Psychology*, 19, 70-82.
- Tangney, J. P. (2002) Humility. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology*. London: Oxford Univer. Press. Pp. 411-419.

Accepted January 25, 2011.