



NOTES AND SHORTER COMMUNICATIONS

The accountant's stereotype: a look back at Granleese and Barrett (1990)

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(Received 14 April 1997)

Summary—Granleese and Barrett (1990, *Personality and Individual Differences*, 11, 957-964) report an operational replication of the Bedeian, Mossholder, Touliatos, and Barkman (1986, *Career Development Quarterly*, 35, 113-122) investigation of the accountant's stereotype. Utilizing a largely Irish sample, they tested the generalizability of the Bedeian *et al.* findings. Although we encourage replication research, the Granleese and Barrett study raises concerns that may render its findings suspect. We examine three of these concerns, indicating where we feel interpretational problems may surface.

Keywords: stereotype, accountants, personality, Eysenck Personality Questionnaire, California Psychological Inventory

THE ACCOUNTANT'S STEREOTYPE: A LOOK BACK AT GRANLEESE AND BARRETT (1990)

Our attention has only recently been called to the article in *Personality and Individual Differences*, Vol. 11, No. 9 of 1990, 'The Social and Personality Characteristics of the Irish Chartered Accountant', in which Granleese and Barrett report on an 'operational replication' (Lykken, 1968) of Bedeian, Mossholder, Touliatos, and Barkman's (Bedeian, Mossholder, Touliatos & Barkman, 1986) study of the accounting profession's stereotyped image. As replication is a hallmark of scientific inquiry, we were pleased to learn of Granleese and Barrett's efforts to extend the external validity of our results, as well as those of other investigators (DeCoster & Rhode, 1971). Granleese and Barrett's research contributes to a growing body of knowledge in an intriguing area. Our purpose in this brief redux is to discuss points raised by Granleese and Barrett and indicate where we feel interpretational problems may surface. In doing so, our aim is not to defend work conducted over a decade ago. Rather we believe that exchanges of this sort are useful in advancing the personological knowledge base and appreciate the opportunity to offer this clarification.

THE GRANLEESE AND BARRETT (1990) STUDY

The Granleese and Barrett (1990) study advances three 'criticisms' of Bedeian *et al.* (1986) in an effort to more accurately determine if there is a stereotypical personality for accountants. These criticisms deal with (a) cross-cultural generalizability, (b) incorrect statistical analyses, and (c) inadequate presentation of findings. Several points relating to each of these criticisms are of concern. Our intent is not to judge their work per se, but to consider specific aspects of their criticisms.

Generalizability

Replications, such as reported by Granleese and Barrett (1990), serve to establish the scope and limits of empirical findings by determining if they can be generalized to different populations, settings, time periods, geographical areas, and so on (Hubbard & Vetter, 1996). In this respect, Granleese and Barrett (1990) are to be commended for attempting to extend previous findings to a wider population (*viz.* Irish chartered accountants). At the same time, however, the potential generalizability gains offered by Granleese and Barrett (1990) may be offset by problems associated with sample representativeness (Sackett & Larson, 1990). Our concern here, however, goes beyond this issue and speaks more to the internal validity of their findings. In specific, we question the confidence that can be placed in the generalizability of Granleese and Barrett's (1990) findings, given what seems to be the questionable representativeness of their sample design. Granleese and Barrett (1990) indicate that self-administered questionnaires were posted to 305 randomly selected members of the 6152-member Institute of Chartered Accountants of Ireland (ICAI). In return, they received only 100 usable questionnaires, and their analyses are based on a further restricted subsample of 92 male respondents. Doubt surfaces as to whether their results are internally valid for their targeted universe, let alone generalizable to other populations. Thus, any comparison of the Granleese and Barrett (1990) results to either the Bedeian *et al.* (1986) findings or normative data reported in such personality inventories as the Eysenck Personality Questionnaire (EPQ; Eysenck & Eysenck, 1975) would best proceed cautiously.

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Statistical analyses

As a second criticism, Granleese and Barrett (1990) submit that the Bedeian *et al.* (1986) results are marred owing to incorrect statistical analyses. In particular, they are critical that the Bedeian *et al.* (1986) analyses did not control for factors such as age, location (i.e. national residence), and religion, and, in the case of female accountants, education. We purposefully selected the California Psychological Inventory (CPI; Gough, 1975) as a basis for our study because of its broad personal and social relevance for nonclinical populations. More specifically, the CPI has been shown to be relatively unaffected by the age of respondents (Bedeian & Feild, 1988) of high-school age and beyond (Gough, 1975). With regard to controlling for national residence, this was unnecessary in our analyses as all subjects in our study resided in the United States. Admittedly, however, insofar as we are able to determine, the association between CPI scale scores and religion has not been a focus of prior study and our data do not allow such an analysis.

With respect to appropriate statistical analyses, we would note that the age-based personality null difference that Granleese and Barrett (1990, table 4) report between ten 20–29 year old ICAI members and the EPQ norms based on 21 otherwise unidentified males should be viewed with caution. Given the reduced sample sizes in each group, the statistical power to detect a difference 'effect' is very small were it actually present (Cohen, 1988). In contrast, the analyses reported in Granleese and Barrett's table 3 (Granleese & Barrett, 1990) possess high power because of the large sample sizes ($n=2312$ and 1624) of the selected comparison groups. Under such conditions, researchers are generally advised to compute effect size estimates to gain some insight into 'result importance' (Thompson, 1989). Accordingly, we calculated ω^2 estimates of effect sizes for the z -values reported in Granleese and Barrett's table 3. ω^2 can be interpreted as the percentage of variance in a dependent variable explained by an independent variable. Following Hays (1973) (formula 10.20.1), and substituting z for t , we estimate the largest proportion of variance in group membership (ICAI or EPQ norm males) explained by EPQ scores to be some one-half of one percent (i.e. $\omega^2=0.0058$). This result leaves open the issue of the practical importance of statistically significant findings based on a large sample. Because of a number of small but significant differences between our accountant suboccupational samples and other occupational groups, we addressed this issue by considering only differences in which at least 10% of the variance was explained (i.e. $\omega^2>0.10$). In doing so, we chose to recognize that statistical significance is but one factor that must be considered in understanding the meaningfulness of relationships among variables.

Inadequate presentation

Finally, Granleese and Barrett (1990) take exception to the manner in which Bedeian *et al.* (1986) present their findings. In particular, Bedeian *et al.* (1986) are faulted for not reporting (a) mean CPI scores for the accountant suboccupation, (b) which CPI scales male subjects differed on in comparison with CPI norms, and (c) the direction of any such differences. With respect to (a), Bedeian *et al.* (1986) state that "The findings from [their] complete ANOVA results for men and women are included in summary tables available from the first author. These tables present the CPI scale means and standard deviations for each group" (p. 116). Owing to page constraints, the action editor had requested this advisory. As regards (b) and (c), table 1 presented in Bedeian *et al.* (1986) is entitled 'Significant ($p<.05$) Group Effects for Male Public, Industrial, and Government Accountants Versus Comparison Groups' and clearly indicates the direction of significant mean differences by suboccupation in contrast to the selected CPI comparison group norms.

CONCLUSION

In sum, we applaud Granleese and Barrett's (1990) effort to replicate and, thereby, extend previous findings concerning the validity of the accountant's stereotypic image. As the key to generalization, replication is a building block of science. In evaluating the usefulness of Granleese and Barrett's (1990) results, however, we have posed several concerns that we believe may compromise the internal and external validity of their conclusions.

REFERENCES

- Bedeian, A. G., & Feild, H. S. Jr. (1988). Correlations between age and California Psychological Inventory scale scores. *Psychological Reports*, *63*, 696–698.
- Bedeian, A. G., Mossholder, K. W., Touliatos, J. & Barkman, A. I. (1986). The accountant's stereotype: An update for vocational counselors. *Career Development Quarterly*, *35*, 113–122.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd edn.). Hillsdale, NJ: Erlbaum.
- DeCoster, T. D. & Rhode, J. G. (1971). The accountant's stereotype: Real or imagined, deserved or unwarranted. *Accounting Review*, *46*, 651–664.
- Eysenck, H. J. & Eysenck, S. G. (1975). *Manual of The Eysenck Personality Questionnaire*. London: Hodder and Stoughton.
- Gough, H. G. (1975). *Manual for the California Psychological Inventory* (2nd edn.). Palo Alto, CA: Consulting Psychologists Press.
- Granleese, J. & Barrett, T. F. (1990). The social and personality characteristics of the Irish chartered accountant. *Personality and Individual Differences*, *11*, 957–964.
- Hays, W. L. (1973). *Statistics for the social sciences* (2nd edn.). New York: Holt, Rinehart, and Winston.
- Hubbard, R. & Vetter, D. E. (1996). An empirical comparison of published replication research in accounting, economics, finance, management, and marketing. *Journal of Business Research*, *35*, 153–164.
- Lykken, D. T. (1968). Statistical significance in psychological research. *Psychological Bulletin*, *70*, 151–159.
- Sackett, P. R. & Larson, J. R., Jr. (1990). Research strategies and tactics in industrial and organizational psychology. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (2nd edn., Vol. 1, pp. 419–489). Palo Alto, CA: Consulting Psychologist Press.
- Thompson, B. (1989). Statistical significance, result importance, and result generalizability. Three noteworthy but somewhat different issues. *Measurement and Evaluation in Counseling and Development*, *22*, 2–6.