

FURTHER TESTS OF VALIDITY FOR THE ONE-DIMENSIONAL HONG'S PSYCHOLOGICAL REACTANCE SCALE¹

PETER K. JONASON

New Mexico State University

Summary.—Prior work using Hong's Psychological Reactance Scale has shown that there were main effects for participants' sex, race, and age. No consistent significant relationships with these demographic factors were obtained with scores on Hong's Psychological Reactance Scale. The one-dimensional nature of the scale was supported. Further analyses yielded no significant results with sexual orientation, socioeconomic classifications, and education. If the scale is to be a useful measure of Psychological Reactance, much more work is needed. The findings from prior work and this one may be affected by measurement error in the construct and the small magnitude of the relationships.

A major task for personality psychologists is to construct measures suitable to assess personality traits (i.e., validity tests). One of these traits is psychological reactance (Brehm, 1966). One measure of psychological reactance is the Hong's Psychological Reactance Scale (Hong & Faedda, 1996; see Dowd, Milne, & Wise, 1991 for a review of an alternative measure known as the Therapeutic Reactance Scale).

However, Hong's Psychological Reactance Scale has recently undergone a refinement from a multidimensional scale to a one-dimensional scale (Jonason & Knowles, 2006). In defense of the one-dimensional nature of their Hong's Psychological Reactance Scale, Jonason and Knowles (2006) conducted a number of discriminant validity tests with constructs some of which had previously been correlated with scores on Hong's Psychological Reactance Scale and found inconsistent evidence of discriminant validity (Rotter, 1966; Diener, Emmons, Larsen, & Griffin, 1985; Keltikangas-Jarvinen & Rimon, 1987). Thus this new scale calls into question some of the previous findings that have been associated with Hong's Psychological Reactance Scale (Hong & Ostini, 1989; Hong & Page, 1989; Hong, 1992; Hong & Faedda, 1996).

In this study, one reported further tests of validity to replicate Jonason and Knowles' (2006) one-dimensional scale. For instance, men have repeatedly reported a higher likelihood of being psychologically reactant (Joubert, 1990; Hong, Giannakopoulos, Laing, & Williams, 1994; Seeman, Buboltz, Jenkins, Soper, & Woller, 2004). In addition, Hong, *et al.* (1994) showed

¹Address correspondence to Peter K. Jonason, New Mexico State University, Psychology Department, P.O. Box 30001/MSC 3452, Las Cruces, NM 88003 or e-mail (pjonason@nmsu.edu). The author thanks Pamela Izzo and Leisha Colyn for help in preparing this manuscript.

that younger participants were more psychologically reactant than older ones. Finally, Seeman, *et al.* (2004) reported that African Americans were likely to produce higher reactance scores than European Americans. African-American participants were hypothesized to have higher scores on Hong's Psychological Reactance Scale than European Americans. The findings by sex, age, and race were expected to be replicated.

STUDY 1

Method

The sample of 240 (49% women) undergraduates (M age = 25.0 yr., $SD = 7.8$; $Range = 16-65$) received extra credit in Psychology and Communication courses for voluntary participation. Participants identified themselves as European American (44%), African American (33%), Hispanic American (17%), Asian American (1%), and some other racial category (5%). Participants reported that on average they had some college (rated as: 1 = no college; 5 = Ph.D.).

Participants were given an informed consent to read and sign. Participants completed demographic information, followed by the Hong's Psychological Reactance Scale for which scores were averaged as recommended by Jonason and Knowles' advice (2006) to make it one-dimensional (Cronbach $\alpha = .67$; $M = 3.1$, $SD = .5$). When completed, the participants were debriefed.

Results

No main effects were found for sex ($t_{230} = 1.39$, ns) or race ($F_{4,231} = .05$, ns) using Hong's Psychological Reactance Scale. Participants' age was not correlated with their Hong's Psychological Reactance Scale score ($r_{239} = -.08$, ns). Sex of participant significantly interacted with years of education on Hong's Psychological Reactance Scale scores ($F_{3,231} = 3.39$, $p = .02$, $\eta^2 = .04$); however, this is likely a chance finding given the small effect size. Caution in interpretation seems important. It suggested that men might actually be more psychologically reactant than women, but that those women with some college ($n = 134$) have obscured that effect. No other significant interactions were found.

Discussion

Results did not replicate prior findings. These failings are suggestive of measurement error in the construct itself and may have been observed by chance in the past because of the data-driven techniques of prior authors. Study 2 was a second attempt to verify prior work and used an alternative measure of education, grade point average.

STUDY 2

Method

Participants were 246 (66% women) undergraduates (M age = 25.0 yr.,

$SD=9.90$; range=17–70) who received extra course credit for participation. Their mean grade point average (GPA) was 3.0 ($SD=.71$).

Participants were given an informed consent to read and sign, then completed demographic information, followed by the Hong's Psychological Reactance Scale. Scores were again averaged (Cronbach $\alpha=.67$; $M=3.1$, $SD=.5$). When completed, the participants were debriefed.

Results

No sex difference was observed for participants' Hong's Psychological Reactance Scale scores ($t_{244}=.49$, ns). Participants' age was correlated with their Hong's Psychological Reactance Scale scores ($r_{246}=-.18$, $p<.01$). Participants' GPA and their Hong's Psychological Reactance Scale scores were not correlated ($r_{239}=.01$, ns). No significant interactions were found.

GENERAL DISCUSSION

When the Hong's Psychological Reactance Scale is used as a one-dimensional scale, it no longer reliably yields the significant findings (although results were in the proper direction) with factors such as sex, age, and race of participants as observed in the past. The results regarding sex of participants were in some ways foreshadowed by an earlier failure of Hong (1990) to find such an effect. Age might still be informative about Hong's Psychological Reactance Scale but only was observed in Study 2. However, null results cannot be reasonably interpreted.

This study indicated the one-dimensional version of Hong's Psychological Reactance Scale (Jonason & Knowles, 2006) had internal consistency estimates of .74 and .67. It is clear the latter scale has rather low internal consistency, and Jonason and Knowles (2006) reported similar values. This supports the internal consistency estimates Jonason and Knowles (2006) offered but also reaffirms their conclusions about the high measurement error within Hong's Psychological Reactance Scale.

In conclusion, these failures to replicate question the usefulness of measuring psychological reactance as a trait with the Hong's Psychological Reactance Scale. In fact, all the hypothesized relationships were recently observed with another measure, the Therapeutic Reactance Scale (Woller, Buboltz, & Loveland, 2007), suggestive of that scales' potential superiority.

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