

Environmental Values and Authoritarianism

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The present study examines relationships between the environmental values of P (preservation) and U (utilization) as measured by the 2-MEV (2-Factor Model of Environmental Values) scale (Wiseman & Bogner, 2003; Bogner & Wiseman, 2006), and authoritarianism, measured as a factor extracted from a shortened set of items adapted from the Wilson-Patterson conservatism scale (Wilson & Patterson, 1968; Wilson, 1973). Respondents were 368 university students of Southern Germany. The study reports a negative correlation between authoritarianism and preservation and a positive correlation between authoritarianism and utilization. This result is interpreted in terms of the aggressive and self-serving nature of those scoring high on the tough-minded brand of conservatism assessed by the authoritarianism factor.

Keywords: environmental values, utilization, preservation, sets of attitudes, authoritarianism

Introduction

Although attitudes towards ecology and the environment are of increasing interest in times of fossil fuel depletion and a threatened global warming crisis, research on the way in which environmental attitudes fit within the realm of social attitudes in general has produced inconsistent findings. Iwata (1977), working in Japan, demonstrated a distinction between authoritarianism and conservatism in this arena. Although these two personality factors were moderately correlated ($r = 0.41$), they were related in opposing fashion to environmental attitudes: Authoritarianism was associated with negative attitudes to environmental concerns, while conservatism (measured by a Wilson-Patterson type scale) went with positive environmental attitudes.

Most subsequent studies have supported the former of these two findings that right-wingers express negative views of environmentalism. Van Liere and Dunlap (1980), reviewing evidence up until that time, found “substantial support for the hypothesis that liberals are more environmentally concerned than conservatives”, while Hodgkinson and Innes (2000) found that “Social conservatism inhibited environmental beliefs”. Peterson, Doty, and Winter (1993) reported the hostility of authoritarians towards the environmental movement. Forgas and Jolliffe (1994) also found that “greenies” generally had “radical political views” and were less likely to be religious, except for a small group of fundamentalists warning of extreme “doomsday” scenarios.

The present research was intended to clarify the relationship between broad social attitudes and environmental concerns using a relatively new instrument for quantifying environmental values, the 2-MEV (2-Factor Model of Environmental Values) scale (Bogner & Wiseman 1999, 2002, 2006; Wiseman & Bogner, 2003). This test captures two theoretically orthogonal higher-order factors: P (preservation), an ecocentric

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factor reflecting conservation and protection of the environment, and U (utilization), an anthropocentric factor reflecting the view that natural resources exist for humans to exploit. Numerous and extensive studies based on large samples led to the development of the 2-MEV model (Bogner & Wilhelm, 1996; Bogner & Wiseman, 1996, 1997, 1998, 1999, 2002a; 2002b, 2006). Other groups have confirmed this two-factor model (Milfont & Duckitt, 2004; 2006), and the scale has been successfully employed in a variety of intervention studies (Bogner, 1998, 1999, 2004; Bogner & Wiseman, 2004; Johnson & Manoli, 2008). Further cross-validation studies include those of Bogner, Brengelmann, and Wiseman (2000), who examined the relationship between environmental attitudes and risk-taking behavior, and Wiseman and Bogner (2003) who studied the relationship with personality factors.

The instrument chosen to measure social attitudes was the Wilson-Patterson C (conservatism) scale (Wilson & Patterson, 1968; Wilson, 1975). This was conceived as a measure of a general factor hypothesized to underlie social attitudes in all areas much as “g” (general intelligence) accounts for the inter-correlations amongst various mental abilities (Wilson, 1973). The general factor notion has been confirmed in a variety of different cultures, both European and non-European, and its origins traced to a personality factor that is part genetic and that reflects the need to manage uncertainty and threat (Jost, Glaser, Kruglanski, & Sulloway, 2003). An unusual feature of the scale is that a short-item format replaces the lengthy and leading statements used in many other attitude scales, such as the California F-scale. This item format has the advantage of reducing the effect of acquiescence and social desirability response sets that plagued many of the scale’s predecessors (Wilson, 1985). Four factors were extracted from a 20-item subset of the original 50 items of the C-scale. One of these factors, labeled authoritarianism, correlated with environmental values.

Sample

After exclusion of respondents 26 years old and older, the data from 368 student participants of Southern German universities were available for analysis, 67.1% female; mean age 22.12 ($SD = 1.55$), minimum 18.92 and maximum 25.92.

Measures

P and U were computed as mean scores of the appropriate items of the 2-MEV (2-major environmental values) questionnaire. The C scale was a German translation of a 20-item subset adapted from the original 50-item Wilson-Patterson questionnaire. Since nothing was known of its structure, the 20 items were subjected to principal component analysis. On the basis of a screen plot, four factors were selected, rotated via oblimin, and the resulting factor scores correlated with P and U. Significant correlations with P and U were found with only one of these factors, consisting of the six items shown with their corresponding factor loadings in Table 1. Although only 48 participants responded to all 20 conservatism items, 179 responded to the six items of interest, so a mean score for these participants was computed over the six items. We labeled this score “authoritarianism”, although the item content of this sub-factor suggests that “tough-mindedness” would be an equally apt descriptor, since it focuses on ethnocentrism and punitiveness, with an absence of items concerning religious puritanism or anti-hedonism, as are included in fuller versions of the C-scale.

Table 1

Conservatism Items and Loadings

Item	Loading
Superiority of the white race	0.63
Imperialism	0.61
Death penalty	0.56
Strict discipline	0.54
Patriotism	0.54
Censorship	0.42

Statistical Methods

Scores derived from the questionnaires are mean values, and hence the central limit theorem permits us to assume normality and employ parametric tests. Mean gender differences were examined using the independent sample *t*-test for unequal variances. Correlations were examined using Pearson's *r*. Gender differences in correlations of C with P, and C with U were tested using the general linear model to realize a univariate ANOVA (analysis of variance) with the dependent variable P or U respectively, independent variable gender, covariate C.

Results

Female respondents yielded a significantly higher mean score on preservation (mean = 3.814, *SD* = 0.477) than males (mean = 3.620, *SD* = 0.594): $t = 3.088$, $df = 193.197$, $p = 0.002$ (see Figure 1). In the case of U, the difference was reversed, females yielding a significantly lower mean score (mean = 2.037, *SD* = 0.458) than males (mean = 2.200, *SD* = 0.587): $t = 2.883$, $df = 189.066$, $p = 0.009$. The mean C-score of females (mean = 0.188, *SD* = 0.187) was significantly lower than that of males (mean = 0.331, *SD* = 0.249): $t = 4.095$, $df = 113.16$, $p < 0.001$ (see Figure 2). Women tend to be more religious and anti-hedonistic, thus balancing overall conservatism scores in the original C-scale (Wilson, 1975).

This gender effect in P or U is in line with previous studies (Bogner & Wiseman, 2002; 2004). P and U are measured on 5-point Likert scales, hence the corresponding observed mean differences are of scant substantive interest, and essentially corroborate those earlier findings: 0.194 (3.8%) in the case of P, 0.163 (3.3%) in the case of U. The mean difference in C-scores of 0.143 (14.3%) is considerably larger (see Figures 1 and 2).

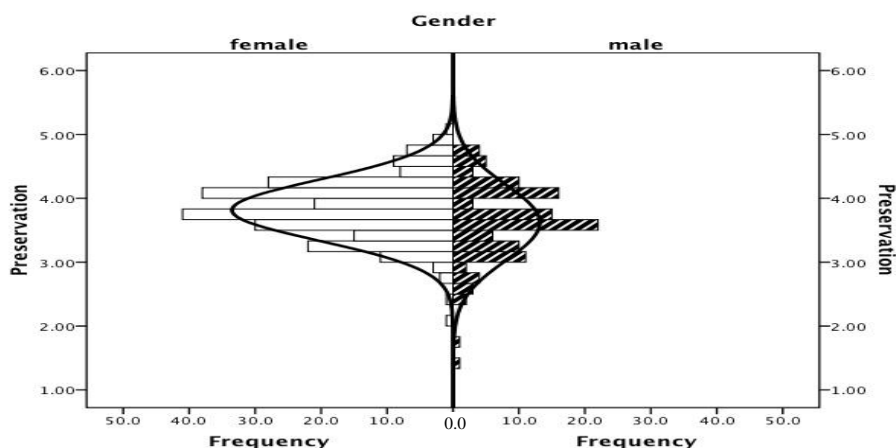


Figure 1. Gender differences in preservation.

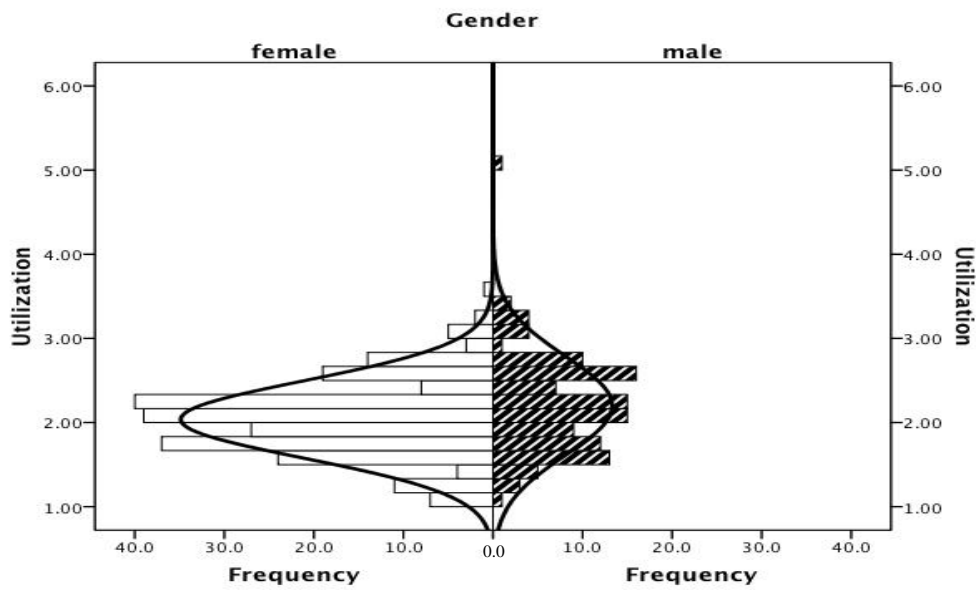


Figure 2. Gender differences in utilization.

Significant and substantive gender differences were found in the correlations between C and P ($F = 5.298$; $df = 1.176$; $p = 0.023$) and C and U ($F = 1.084$; $df = 1.47$; $p = 0.046$). Neither correlation observed for female respondents reached significance ($r_{c,p} = -0.111$, n.s.; $r_{c,u} = 0.131$); both correlations for males were significant ($r_{c,p} = -0.377$, $p = 0.002$; $r_{c,u} = 0.422$, $p < 0.001$) (see Figures 3 and 4).

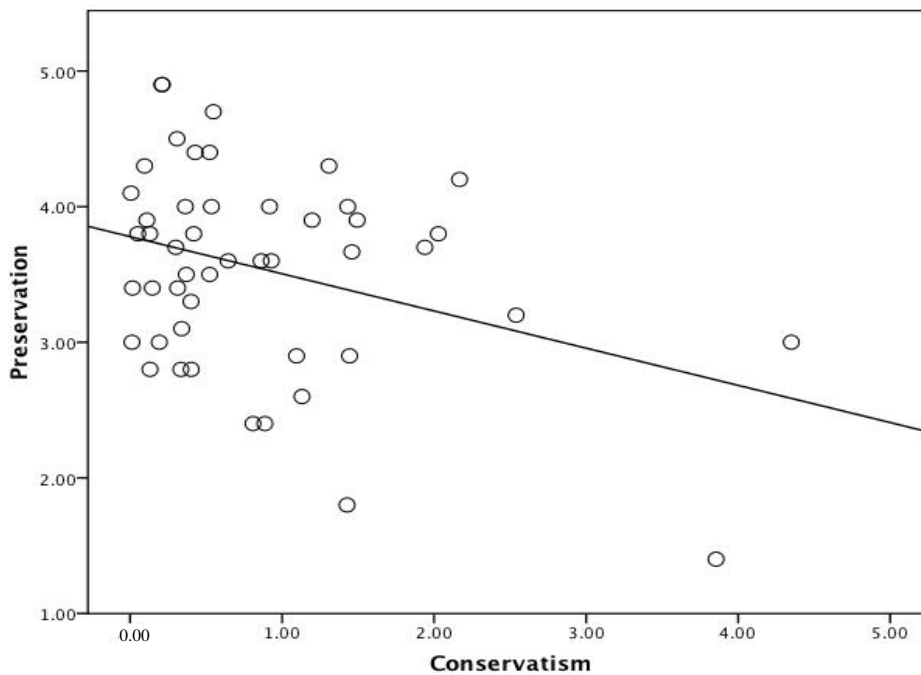


Figure 3. Scatterplot and regression of authoritarianism on preservation.

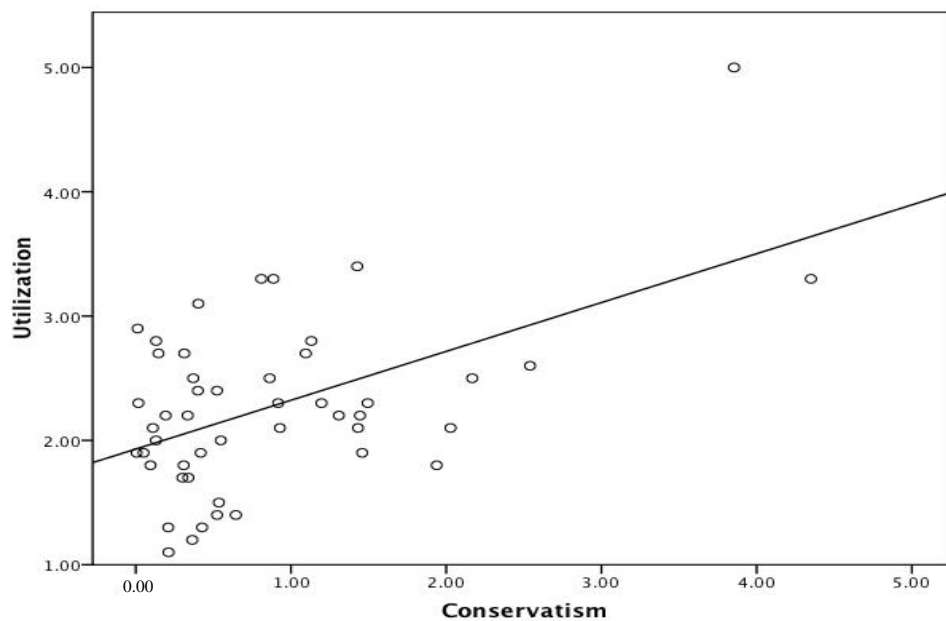


Figure 4. Scatterplot and regression line of authoritarianism on utilization.

Discussion

The youngest participant in the present study was almost 19, the oldest almost 26 years old. How well a scale developed for adolescents can be expected to perform on a sample so much older is debatable, although the 2-MEV has been confirmed using samples of university students (Milfont & Duckitt, 2004; 2006) and in-service teachers as well (Munoz et al., 2009), however, in studies based on scores derived from a variety of scales.

The administrators of the test battery reported considerable annoyance on the part of the participants to the lack of an “undecided” response category in the short version of conservatism scale used here. This perhaps explains the large percentage of missing responses: 87% (320 of 368) of participants failed to complete the C-scale in full, in contrast to 0% missing responses to the 2-MEV scale, and 2.4% missing responses to the gender item.

The central interest of the present paper lies in the relationship between authoritarianism on the one hand, preservation and utilization on the other hand. The first striking result is that only male respondents show any relationship between environmental values and authoritarianism. In the case of males, C is negatively related to P and positively to U. This substantiates the finding of Powell and Stewart (1978) of a clear positive correlation between anthropocentrism and conservatism in children aged eight to 15, and other studies mentioned in the introduction.

Interestingly, Wiseman and Bogner (2003) found that psychoticism, too, was negatively related to P ($r = -0.25$, $p < 0.001$) and positively to U ($r = 0.23$, $p < 0.001$). The possible relationship between C and Psychoticism suggested by our result has some support (Pearson & Greatorex, 1981; Wilson & Brazendale, 1973) and it is likely that authoritarianism as defined in the present paper (featuring as it does rather tough and hostile attitudes, such as ethnocentrism and punitiveness) may be even more strongly associated with P. If indeed, “toughness” is central to the form of conservatism tapped here, this might account for the apparent

hostility of high C individuals to conservation and protection of the environment, combined with their view that nature is there to be exploited. It implies a kind of aggressive selfishness, in which control of other people and the environment is paramount and “to hell with any long-term consequences”.

Summary and Conclusions

A number of studies have suggested that concern with environmental issues is related to liberal political views and attitude profiles. This study extends those findings by showing that this correlation applies to both the factor of P, referring to conservation and protection of the environment, and U with conservative individuals being more likely to take the view that natural resources exist for humans to exploit. These relationships achieved significance only for males, though it is not clear why. The particular short-form of the C-scale used here reflected a sub-factor that was weighted toward ethnocentric and punitive items, hence tells us little about how other aspects of conservatism, such as religiosity and anti-hedonism might connect with environmentalism.

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