A comparative study of the general factor of personality in Jewish and non-Jewish populations

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ABSTRACT

It was hypothesized that Jews would have a personality profile characterized by high levels of the general factor of personality (GFP). Analyses based on three large samples supported this hypothesis. Additionally, the Jewish/non-Jewish group difference on personality traits exhibited a Jensen Effect with the largest difference between groups being on the traits that had the highest loadings on the GFP. Future research should focus on investigating how the high Jewish GFP is manifested in behavioral and social outcomes.

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1. Introduction

The high levels of achievement and eminence attained by Jews has been a subject of intense interest. Quite often differential psychologists have attributed this success to the high average level of general intelligence exhibited by Jews. Ashkenazi Jewish IQ estimates range from one half to a full standard deviation above the non-Jewish mean (Cochran, Hardy, & Harpending, 2006; Lynn, 2004, 2011; Lynn & Kanazawa, 2008; Lynn & Longley, 2006; MacDonald, 1994) Consistent with the idea that the high levels of Jewish intelligence are substantive, two recent analyses found Jensen Effects (Jensen, 1998) related to Jewish intelligence (Dunkel, 2014; Te Nijenhuis, Hanna, Metzen, & Armstrong, 2014), meaning, for example, that the Jewish/non-Jewish White difference is most pronounced on cognitive tests that load highly on the g factor.

However, the examination of Jewish success has often focused on the realms of intellectual achievement, using metrics like the percentage of Nobel prizes won to gauge accomplishment (e.g., Cochran et al., 2006; Lynn & Longley, 2006). But, Jewish accomplishment is also evident in pursuits less dependent just upon cognitive ability (Congressional Research Service, 2014). In a recent analysis of admissions to elite academic institutions Unz (2012) showed that Jews were enrolled in numbers well above what would be predicted solely on academic merit (see Appendices C–F),

suggesting that Jewish success, even academic success, should be attributable to some factor beyond that of cognitive ability.

An obvious candidate for the source of group differences is personality. Compared with intelligence, very little work has been conducted into understanding the personality differences between Jews and other groups. Cochran et al. (2006) argue that Jewish intelligence evolved as Jews found an economic-social niche in cognitively demanding professions such as trade and finance (with achievement in these professions leading to increased reproductive success), while farming remained the primary occupation of other groups. In comparison to farming, success in trade and finance also involves superior interpersonal skills suggesting that personality traits associated with heightened social effectiveness could also have been selected.

It has also been argued that the personality traits of Jews are partly constituted by a group-level orientation towards slow life history strategy (e.g. MacDonald, 1994). Life history is characterized by a continuum of physiological and psychological variables, with a 'fast' life history strategy being characterized by behavioral and personality dispositions which optimize the phenotype for high mating effort such as early maturation, weak pair bonds, and a focus on short-term mating. On the other hand 'slow' life history is characterized by lower mating effort and the production of relatively fewer highly invested-in offspring (Belsky, Steinberg, & Draper, 1991; Figueredo, Vásquez, Brumbach, & Schneider, 2004).

A key behavioral manifestation of life history is the general factor of personality (GFP), which exists as a source of common factor variance amongst various diverse personality measures – somewhat akin to the g factor of intelligence (Figueredo et al.,

2004). Individuals with a high GFP can be thought of as being socially effective (e.g., Loehlin & Martin, 2013) or as having a high level of emotional intelligence, as these characteristics have been shown to have strong associations with the GFP (Dunkel & Van der Linden, 2014; Van der Linden, Scholte, Cillessen, Te Nijenhuis, & Segers, 2010; Van der Linden, Tsaousis, & Petrides, 2012). Consistent with this, Figueredo et al. (2004) found a strong relationship between the GFP and life history strategy, and that these two dimensions also combined with a general health factor called covitality to form a high-order factor dubbed Super-K. Subsequent research has lent support to the position that the GFP and life history strategy are correlated (Dunkel & Decker, 2010; Gladden, Figueredo, & Jacobs, 2008; Van der Linden, Figueredo, De Leeuw, Scholte, & Engels, 2012).

Thus, a life history account of Jewish achievement fits with the ideas posited by Cochran et al. (2006) in that each model suggests a role for personality. Both accounts point to a personality profile reflecting social effectiveness, and given that the GFP reflects social effectiveness it is a good candidate for consideration. On the basis of life history theory we therefore propose that Jews may have a higher GFP than non-Jews, and in conjunction with this hypotheses, it was predicted that differences in personality would be largest on the most GFP-loaded personality traits (e.g., there will be Jensen Effects associated with the group differences).

Given that Jewish/non-Jewish difference in intelligence is well established and that there may be a substantial association between the GFP and intelligence (Dunkel, 2013), intelligence could drive any Jewish/non-Jewish differences in the GFP. Note that response bias is an alternative interpretation of the GFP (e.g., Bäckström, 2007) and, therefore, it could also simply be a matter of more intelligent individuals being more adept in presenting themselves in a positive light in their responses on personality questionnaires (Major, Johnson, & Deary, 2014). For this reason, along with the demographic variables of age and sex, intelligence was also controlled in the present analysis into this putative source of group differences.

2. Method

2.1. Checking convergent validity

Data from three separate datasets (described below) were utilized. In each dataset a unique personality measure was administered. However, each of these measures were also administered to a substantial number of participants by Pozzebon et al. (2013) allowing for a comparison of GFPs across measures. That is, the data from Pozzebon et al. (2013) allowed for convergent validity to be checked by first extracting GFPs from the scales of each of the three measures and looking at the magnitude of their intercorrelations. As can be seen in Table 1, there is substantial convergence among the three GFPs.

2.2. Sample 1: The National Longitudinal Study of Adolescent Health (ADD Health)

The initial wave of data collection for ADD Health (Harris & Udry, 1994–2008) began in 1994–95 when the 20,745 participants

Table 1
Intercorrelations amongst GFPs.

	GFP_{IPIP}	GFP_{MIDUS}	GFP_{SAI}
GFP_{IPIP}	–		
GFP_{MIDUS}	.73[*] (1070)	–	
GFP_{SAI}	.76[*] (1176)	.66[*] (1111)	–

Note: IPIP = International Personality Item Pool. MIDUS = Midlife in the United States. SAI = Student Activities Inventory. GFPs represent the score on the first unrotated factor from an exploratory factor analysis using Principal Axis Factoring on the measure scales. Degrees of freedom are in parentheses.
[*] $p < .001$.

were in middle or high school. The fourth and most recent wave of data collection was in 2008–09 when participants were 24–34 years of age. Personality and religious affiliation were measured in the fourth wave of data collection while intelligence was measured in wave 3 (2001–02).

2.2.1. Religious affiliation

Participants were asked their religious affiliation. Participants who identified as Protestant ($n = 1{,}675$), Catholic ($n = 925$), Jewish ($n = 34$), or None/Atheist/Agnostic ($n = 962$) were included in the analyses.

2.2.2. Personality

The Big Five personality traits of Agreeableness, Conscientiousness, Extraversion, Neuroticism, and Openness were measured using a five-point Likert-type scale to rate 20 items from the Mini-International Personality Item Pool (IPIP–BF; Baldasaro, Shanahan, & Bauer, 2013; Goldberg, 1999). The first unrotated factor using Principal Axis Factoring (PAF) was used to extract a GFP. This factor had an Eigenvalue of .89 and explained 17.96% of the variance among the trait scales. Owing to the low GFP Eigenvalue, an alternative unit-weighted GFP was computed using the z-scores of each of the Big Five measures. The PAF-derived GFP correlated with the unit-weighted GFP at $r = .96$. Due to this similarity, only the PAF-based GFP was used in subsequent analyses. The internal consistency for each trait scale and its factor loadings on the GFP can be seen in Table 2.

2.2.3. Intelligence

The Peabody Picture Vocabulary Test (PPVT) was administered in wave 3. The ADD Health PPVT score has successfully been used as a measure of general verbal intelligence (Beaver et al., 2014; Rowe, Jacobson, & Van den Oord, 1999).

2.2.4. Results

Table 2 presents the means and standard deviations for personality traits, the GFP, and intelligence by religious affiliation. Following the objectives of the study an initial omnibus test was performed by collapsing the groups into Jewish and non-Jewish and testing for the difference on the GFP, $t (5024) = 3.73$, $p < .001$. This was followed by another test of the difference on the GFP between Jews and non-Jews controlling for age, sex, and intelligence, $F (1, 4806) = 7.85$, $p < .01$. Next, comparisons were made between the Jewish and the other religious affiliation groups. Jews had higher GFPs than all other groups: Protestants, $t (1685) = 3.61$, $p < .001$; Catholics, $t (944) = 3.54$, $p < .001$; Agnostic/Atheists, $t (980) = 4.19$, $p < .001$.

Jensen Effects for the group differences were tested by correlating the differences between Jews and the other religious groups in terms of standardized scores for each of the Big Five and correlating the difference with the factor loadings of the traits. The resulting correlation was $r = .85$. The correlation was rerun controlling for the internal consistency of each trait scale. The resulting partial correlation was $pr = .88$. These findings confirm that the group differences are strongly related to the extent to which the individual personality scales loads on the GFP.

2.3. Sample 2: Midlife in the United States II (MIDUS II)

MIDUS II (Ryff et al., 2004–2006) is the second wave of data collection of an extensive longitudinal examination of adult development within the United States. Data collection for MIDUS II was completed in 2009. The full sample consisted of 4963 participants between the ages of 32 and 84.