

Sensational Interests, Mating Effort, and Personality: Evidence for Cross-Cultural Validity

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Abstract. We assessed whether violent or macabre interests (“sensational interests”) were related to mating effort and a higher-order personality construct reflecting the combined features of higher Extraversion, lower Psychoticism, and lower Neuroticism in 1321 participants from English-speaking (Tucson, Arizona, and Glasgow, Scotland) and Spanish-speaking (Hermosillo, Mexico, and Talca, Chile) communities. Participants from Spanish-speaking communities generally had more sensational interests. Mating effort was positively related to sensational interests, though the relationship was slightly weaker in Spanish-speaking communities. Personality effects were modest and entirely moderated by language; personality was negatively related to sensational interests in English-speaking communities, but positively associated to sensational interests in Spanish-speaking communities. These findings suggest that the relationship between mating effort and sensational interests is universal and reflects general intrasexual competition, whereas the relationship between personality and sensational interests is more culture-specific.

Keywords: mating effort, sensational interests, personality, cross-cultural

The idea that sensational interests reflect a general and universal phenomenon driving behavior may seem counter-intuitive, and it may appear that we have moved on from a time of gladiators, public executions, and human sacrifice. However, an interest in weaponry unites terrorist, state-sanctioned defenders of the public, and sportsmen; narratives involving violent acts, whether militaristic, criminal, or fantastic remain popular among adults and children; and the frequency of “sensational” news topics has not changed in 300 years (Davis & McLeod, 2003). Persons continue to have aggressive or militaristic interests despite no survival pressure or professional requirement to do so, and while some serious offenders are notable for such interests, so are many members of the public. A direct way to test whether sensational interests reflect a genuine phenomenon is to examine whether the constructs and their interrelationships generalize across different cultures and samples within those cultures.

Recent research into sensational interests began with the operationalization of interest constructs that are thought to reflect putative psychopathology (Britton, 1970) into a psychometrically valid scale. This established that sensational interests, i.e., an interest in weapons, the occult, martial arts, the paranormal, and milita-

ristic topics, are not exclusive to mentally disordered offenders (Egan, Auty, Miller, Amadi, Richardson, & Gargan, 1999). Item analyses of the interests in Britton’s questionnaire suggest that these items collapse into a smaller number of correlated constructs, namely militarism, the violent occult, and criminality or deviant group identity (Egan et al., 1999; Weiss, Egan, & Figueredo, 2004). Personality, in the form of low Agreeableness (A), low Conscientiousness (C), and, from the Sensation-Seeking Scale (Zuckerman, 1984), higher scores on the Disinhibition, and Thrill and Adventure Seeking subscales were found to correlate with sensational interests (Egan et al., 1999; Egan, Charlesworth, Richardson, Blair, & McMurrin, 2001). Among personality-disordered offenders, sensational interests are higher in individuals reporting symptoms associated with antisocial, borderline, histrionic, and narcissistic disorders (Egan, Austin, Elliot, Patel, & Charlesworth, 2003). Receiver operated characteristic analysis shows that measures of personality disorders are more strongly related to sensational interests than low A or low C (Egan, 2003).

Psychoticism (P; Eysenck & Eysenck, 1975) has also been associated with sensational topics, including viewing horror films (Zuckerman & Little, 1986), viewing violent cartoons, and action and adventure films (Aluja-

Fabregat & Torrubia-Beltri, 1998), and “avowed Satanism” (Leeds, 1995). P is also associated with demographic factors such as younger age and male gender (Loehlin & Martin, 2001; Haapasalo, 1990; Forrest, Lewis, & Shevlin, 2000). While low A, low C, and high P are all marked in individuals who carry out antisocial acts (Miller & Lynam, 2001), personality traits do not indicate criminality so much as dispositions underlying transgressive or socially inconsiderate behavior. Is this excessive striving for resources or power display shaped by natural and sexual selection (Quinsey, 2002)? One candidate construct linking offending behavior, sensational interests, and the normal struggle for finite resources is intrasexual competition for mates, i.e., mating effort (Rowe, Vazsonyi, & Figueredo, 1997). Among juvenile sex offenders high mating effort leads to a series of deviant behavioral strategies including hostile masculinity and general (nonsexual) delinquency, which culminates in sex offending (Figueredo, Sales, Russell, Becker, & Kaplan, 2000; Hunter, Figueredo, Malamuth, & Becker, 2003). Weiss, Egan, and Figueredo (2004) found that sensational interests, as measured by the revised SIQ (SIQ-R), were significantly positively related to age, male gender, and higher scores on the mating effort scale (MES; Rowe et al., 1997) suggesting that sensational interests may be higher in persons more concerned with attempting to attract and secure mates.

Ostensibly established personality models such as the Five-Factor Model (FFM; Costa & McCrae, 1992) and the “Gigantic Three” (Eysenck & Eysenck, 1975) generate higher-order personality dimensions (Zuckerman, Kuhlman, Joireman, Teta, & Kraft, 1993; Digman, 1997). Higher-order dimensions are better at predicting delinquency than individual personality dimensions (Cooper, Wood, Orcutt, & Albino, 2003). Another application of these higher-order personality dimensions derives from the field of evolutionary psychology. Certain composites of traditional personality factors may reflect the mating preferences and the reproductive life history strategies of individuals (cf., Buss, 1989, 1991, 1997, 1999).

For example, when the self-report of a person’s personality is subtracted from their description of their “ideal romantic partner,” this ideal romantic partner is rated significantly higher than the self on C, Extraversion (E), and A and significantly lower than the self on Neuroticism (N; Figueredo, Sefcek, Vasquez, Brumbach, King, & Jacobs, 2005; Jones, Sefcek, & Figueredo, 2004). Vasquez (2004) found that a higher-order dimension reflecting this pattern can be found whether one uses the NEO Five-Factor Inventory (NEO-FFI; Costa & McCrae, 1992) or the Zuckerman-Kuhlman Personality Questionnaire (ZKPQ; Zuckerman, 2002). Furthermore, Vasquez (2004) also found that the Mate Value Inventory (Kirs-

ner, Figueredo, & Jacobs, 2003), a measure of self-reported mate value, correlated significantly and positively with general personality dimensions derived from either the NEO-FFI or the ZKPQ, confirming that a general personality dimension reflects perceived mate value, irrespective of the personality inventory used. The general personality dimension derived from the NEO-FFI loaded saliently and positively on C, E, and A, loaded saliently and negatively on N, and correlated significantly and positively (.50) with self-reported mate value. The general personality dimension derived from the ZKPQ loaded saliently and positively on Impulsivity, Sensation-Seeking, Activity, and Sociability, and correlated significantly and positively (.44) with self-reported mate value.

Lastly, Figueredo, Vasquez, Brumbach, and Schneider (2004) found that a comparable higher-order general personality dimension – loading saliently and positively on Openness to Experience (O), C, E, and A, and loading saliently and negatively on N – was significantly and very highly correlated (.66) with a construct assessing a reproductive life history strategy (the “K-Factor”), which comprises a prosocial and higher parental investment reproductive strategy. The higher-order personality dimension was also significantly and highly correlated (.50) with a second construct, Covitality, that reflected higher levels of physical and psychological health (see Weiss, King, & Enns, 2003, for a discussion).

Thus, there is converging evidence that higher-order personality factors are meaningful and useful constructs, which can relate to an ideal romantic partner, a higher-K reproductive life history strategy, or one’s perceived mate value. These higher-order aggregates of personality constructs are, therefore, important to evolutionary theories of delinquency, because various forms of antisocial behavior have been associated theoretically and empirically with both a low mate value (Figueredo & McCloskey, 1993; Figueredo, 1995; Figueredo, Sales, Becker, Russell, & Kaplan, 2000; Figueredo, & Jacobs, 2000; Figueredo, Corral-Verdugo, Frías-Armenta, Bachar, White, McNeill, Kirsner, & Castell-Ruiz, 2001; Figueredo, 2001; Hunter, Figueredo, Malamuth, Becker, 2003) and a lower-K (low parental investment, high mating-effort) reproductive life history strategy (Rowe, 1996; Rowe, Vazsonyi, & Figueredo, 1997; Rowe, 2002).

These results do not speak directly to the perpetual debate over how many personality factors are “real” or even generally more useful, but instead specify an optimal degree of aggregation of personality data for the specific purposes of predicting a particular set of criterion variables, such as delinquency, perceived mate value, and reproductive life history strategy. The current study similarly seeks to go beyond traditional analyses based around P, E, and N and use this parsimonious approach

whereby the higher-order personality dimension becomes the main dimension of interest.

The current study sought to integrate these views into a single model, examining whether sensational interests could be better predicted by mating effort and a higher-order personality factor, and whether these relationships would occur across two English-speaking and two Spanish-speaking communities and across student and general population samples. The two English-speaking communities were Tucson, Arizona and Glasgow, Scotland. The Spanish-speaking communities were Hermosillo, Mexico and Talca, Chile. We predicted that mating effort should be higher in males and lower in older individuals. We predicted that mating effort would be negatively correlated with a higher-order personality dimension comprised of higher E, lower P, and lower N, and that both the higher-order personality dimension and mating effort would relate to sensational interests. We also expected sensational interests to be more prevalent in younger people and in males and for sensational interests to differ between student and general population samples. The diversity of sampling sites and populations across several variants of differing culture and language is a very strong test of the view that the corpus of mating effort, personality, and sensational interests reflects a general construct worthy of investigation.

Methods

Participants

We collected data on 1342 participants; demographic information was unavailable for seven persons. General population and student samples were collected from each of four communities. The first pair of samples was collected in Glasgow, Scotland. The general population sample included 88 men and 119 women (age $M = 22.4$, $SD = 8.1$), and the student sample included 71 men and 89 women (age $M = 19.8$, $SD = 5.2$). The second pair of samples was collected in Tucson, Arizona. The general population sample included 134 men and 93 women (age $M = 26.4$, $SD = 8.1$), and the student sample included 45 men and 113 women (age $M = 21.3$, $SD = 2.1$). The third pair of samples was collected in Hermosillo, Sonora, Mexico. The general population sample included 69 men and 29 women (age $M = 21.5$, $SD = 5.3$), and the student sample included 71 men and 65 women (age $M = 22.2$, $SD = 4.4$). The last pair of samples was collected in Talca, Chile. The general population sample included 99 men and 52 women (age $M = 27.2$, $SD = 9.4$), and the student sample included 86 men and 91 women (age $M = 23.3$, $SD = 3.9$).

Measures

The Revised Sensational Interests Questionnaire (SIQ-R)

The SIQ-R (Weiss et al., 2004) was a revision of the original Sensational Interests Questionnaire (SIQ; Egan et al., 1999). The SIQ-R included 19 items. Some of the SIQ-R items were rephrased to be more familiar to non-American cultures, e.g., "Special Forces/Green Berets/SEALS" became "the Special Air Service."

Each item was rated on three *a priori* 7-point Likert scales. The first scale asked participants to report how interested they were in the topic ($-2 = \textit{great dislike}$ to $+2 = \textit{extremely interested}$); the second scale asked participants to report how important the topic was in their life ($-2 = \textit{completely unimportant}$ to $+2 = \textit{completely important}$); and the third scale asked participants to report their knowledge on the topic ($-2 = \textit{none of passing}$ to $+2 = \textit{advanced}$). A previous study found that ratings on these items loaded onto three orthogonal factors – Militarism, the Paranormal, and Deviant Group Identity (Weiss et al., 2004, see Table 1). In this study we will use the same factor definitions. The α -reliabilities for the SIQ-R militarism, paranormal, and criminal identity subscales were 0.92, 0.90, and 0.78, respectively (Weiss et al., 2004). These subscales vary in the number of items they contain, and differences in reliability likely reflect this. As interest, importance, and knowledge ratings were highly correlated, scores on these ratings were averaged and combined into a single measure.

Table 1. Items in each of the SIQ-R Scales.

| Militarism | Paranormal Interests | Deviant Group Identity |
|------------------------------------|--------------------------------|----------------------------------|
| <i>Armed Forces</i> | <i>Astrology</i> | <i>Drugs</i> |
| <i>Body-Building</i> | <i>Black Magic</i> | <i>Gangs</i> |
| <i>Crossbows and Swords</i> | <i>Flying Saucers</i> | <i>Tattoos and Body Piercing</i> |
| <i>Guns</i> | <i>Paganism</i> | |
| <i>Martial Arts</i> | <i>Paranormal</i> | |
| <i>Mercenaries and Pirates</i> | <i>Vampires and Werewolves</i> | |
| <i>Motorbikes</i> | | |
| <i>Pyrotechnics and Explosives</i> | | |
| <i>Special Forces</i> | | |
| <i>Survivalism</i> | | |

The Mating Effort Scale (MES)

The MES (Rowe et al., 1997) is a ten-item self-report measure designed to assess individual differences in mating effort, i.e., the desire to obtain and guard potential

mates. The original scale was used to assess mating effort in heterosexual males. We slightly rephrased the scale assessing mating effort to make the object of sexual desire gender-neutral, thus making the scale equally applicable to heterosexuals and homosexuals, males and females (Weiss et al., 2004). No new items were added to the scale. Each item was answered using a 5-point Likert scale with responses ranging from -2 *strongly disagree* to $+2$ *strongly agree*. The internal consistency of the modified version of the MES was 0.76 (Weiss et al., 2004), which did not differ from the internal consistency reported in the original study (Rowe et al., 1997).

The Abbreviated Form of the Revised Eysenck Personality Questionnaire (EPQR-A)

The EPQR-A (Francis, Brown, Laurence, & Philipchalk, 1992) comprises four six-item scales measuring Psychoticism (P), Extroversion (E), Neuroticism (N), and Social Desirability (L). Cross-cultural research has been conducted using the EPQR-A in England, Canada, the US, Australia, France, and Spain (Francis et al, 1992; Lewis, Francis, Shevlin, & Forest, 2000; Sandin, Valiente, Chorot, Olmedo, & Santed, 2002). Reported internal reliabilities of the subscales (all derived from the above papers) vary; for E they range from 0.68 to 0.84, for N from 0.66 to 0.77, and for L from 0.58 to 0.76. These are all essentially satisfactory. P is more problematic, with published internal reliabilities ranging from 0.28 to 0.74. Whether indexed by the EPQ-R or the EPQR-A, P scores are less reliable than the other personality dimensions. It has been suggested that this is due to the restricted age range and variety of P-type behavior seen in the student samples typically used as validation samples (Caruso, Witkiewitz, Belcourt-Dittloff, & Gottlieb, 2001).

Procedure

General Population Samples

Participants in these samples were recruited at several locations including large bookshop cafés, canteens, alternative bars (“goth,” “hip-hop,” “punk rock,” and folk music bars) and coffee shops, “punk rock” parties, a “heavy metal” rock concert, tattoo parlors, rock music and piercing stores, stores selling candles and tarot cards, outside an art gallery, indoor rock-climbing establishments, hiking trails, restaurants, barber shops, gas stations, car dealerships, shopping malls, intercity bus stations, street corners in impoverished neighborhoods, town plazas, and from a large central square on a Summer Bank Holiday. Participants were asked to participate and completed the SIQ-R, MES, and EPQR-A question-

naires individually. If they had a question about an item, the experimenters were on hand to help. Experimenters also made sure to check whether participants completed all the demographic information.

Student Samples

Participants in these samples were recruited from university settings such as introductory psychology, business, law, and engineering classes as well as university libraries and cafeterias. In the cases where participants were recruited in a class, the participants completed the questionnaires in a group setting. On the other hand, if these participants were recruited in other locations, the participants completed the questionnaires individually.

Treatment of Data

To create the scales for the SIQ-R, MES, and EPQR-A, unit weighting was used. Unit weighting increases the stability (and, thus, the interpretability) of results across independent samples (Gorsuch, 1983). The unit-weighted factor scores for each participant were computed by taking the means of the standardized scores of the non-missing items on each scale; this overcame any potential difficulties associated with skipped items (Figueredo, McKnight, McKnight, & Sidani, 2000).

For each SIQ-R item we computed the mean across all three possible ratings (interest, importance, and knowledge). Three SIQ-R subscales based on previous factor analysis of the SIQ-R (Weiss et al., 2004) were created with these mean scores. The total SIQ-R score was defined as the average of the three unit-weighted SIQ-R scales.

The MES scale was calculated as the mean of 10 MES items. IDEAL was defined as the mean of the E and the reversed P and N scales from the EPQR-A. SIQ-R scores were calculated as the mean of the Militarism, the Paranormal, and Deviant Group Identity factor scales. The part-whole correlations of both of these higher-order aggregates were then tested and compared across all samples to insure their convergent validities across all study sites.

Results

Psychometric Properties

Scale-Aggregate Correlations

For each of the eight samples we correlated the P, E, and N scales with the IDEAL romantic partner personality construct and the Militarism, the Paranormal, and Devi-

Table 2. Correlations between scale and aggregate scores for the IDEAL and SIQ-R constructs.

| | <i>General</i> | | | | <i>Student</i> | | | | Pooled |
|---------------------|----------------|--------|------------|-------|----------------|--------|------------|-------|--------|
| | Glasgow | Tucson | Hermosillo | Talca | Glasgow | Tucson | Hermosillo | Talca | |
| IDEAL | | | | | | | | | |
| <i>Psychoticism</i> | -.51 | -.35 | -.45 | -.44 | -.46 | -.37 | -.32 | -.65 | -.60 |
| <i>Extraversion</i> | .53 | .70 | .64 | .64 | .71 | .73 | .51 | .69 | .68 |
| <i>Neuroticism</i> | -.72 | -.69 | -.73 | -.76 | -.5 | -.66 | -.70 | -.59 | -.59 |
| SIQ-R | | | | | | | | | |
| <i>Militarism</i> | .78 | .83 | .84 | .90 | .85 | .83 | .84 | .81 | .83 |
| <i>Paranormal</i> | .80 | .82 | .80 | .83 | .79 | .80 | .84 | .83 | .81 |
| <i>Deviant</i> | .84 | .83 | .87 | .86 | .78 | .84 | .81 | .84 | .83 |

Note. IDEAL = Ideal Romantic Partner Personality Factor; SIQ-R = Revised Sensational Interests Questionnaire; All $ps < .001$.

ant Group Identity scales with the total SIQ-R score (see Table 2). These results strongly suggest that the correlations of the individual scale and aggregated construct scores were equivalent across samples.

Social Desirability

One potential advantage of using an instrument such as the SIQ-R to assess potentially antisocial behavior is that it does not ask respondents to self-report illegal behaviors and, hence, is less subject to social desirability bias. Because the EPQR-A contained a short-form of the Eysenck Lie Scale (L), we were able to test the degree to which the SIQ-R is related to social desirability in our samples. In the total sample, the correlation of L with SIQ-R was nonexistent ($r = .00, p > .05$). We also examined these correlations within samples. The correlations between L and SIQ-R were small and nonsignificant for the four English-speaking samples ($rs = -.06$ to $.11$), but among the Spanish-speaking samples the correlation was statistically significant in the general ($r = -.29, p < .05$) and student ($r = -.17, p < .05$) samples collected in Hermosillo, indicating that socially desirable response biases led to reduced reporting of sensational interests. Among the Talca participants the correlation between SIQ-R and L was significant and positive in the general population sample, but this was not replicated in the Talca student sample and suggests that the positive correlation in the general population was due to chance. These results led us to qualify our previous endorsement and suggest that the SIQ-R should be used with greater caution in some Spanish-speaking populations. There is also the suggestion that higher-order personality factors found with self-report data may reflect presentation bias or halo effects (Biesanz & West, 2004). However, in our data we found no significant correlation between L and IDEAL ($r = .04, p > .05$).

Prediction of the SIQ-R

Predictors of the SIQ-R were entered into a hierarchical regression. Among the main effects were Age and Gender (females = 0; males = 1). Also, there were four orthogonal contrast codes that compared different samples. C1 tested for mean-level differences between the general population sample and those in the student samples, C2 tested for mean-level differences between the Spanish-speaking and English-speaking participants, C3 compared mean SIQ-R levels of the two samples from Glasgow to the two samples from Tucson, and C4 compared the mean SIQ-R levels of the two samples from Hermosillo to the two samples from Talca. The model also included main effects of the IDEAL and MES variables.

Interactions included C5, C6, and C7, which were the $C1 \times C2$, $C1 \times C3$, and $C1 \times C4$ interactions, respectively, the IDEAL \times MES interaction, and the interactions of IDEAL, MES, and IDEAL \times MES with C1–C7.

Hierarchical partitioning of variance was used to test the significance of these effects in the 1251 participants that had valid data for all the variables of interest. The model accounted for approximately 22% of the SIQ-R variance. The F -values derived from this hierarchical partitioning of variance are presented in Table 3. The first two main effects, Age and Gender, were significantly related to the total SIQ-R score; older participants had lower ($\beta = -.096$) and males had higher ($\beta = .053$) SIQ-R scores than younger participants or females, respectively.

The next series of effects were the contrasts: The main effect of C1 was significant; general population samples had higher SIQ-R scores than student samples ($\beta = .113$). The main effect of C2 was also significant; Spanish-speaking samples had higher SIQ-R scores than English-speaking samples ($\beta = .123$). The main effect of C3 was also statistically significant; Glaswegians had lower SIQ-R scores than Tucsonians ($\beta = -.136$). The main effect of C4 was also statistically significant; both Talca

Table 3. β -weights and F-ratios for main effects and interactions of age, sex, site contrasts (C1–C7), IDEAL, and MES upon total SIQ-R scores.

| Predictors | Main Effects | Interactions \times IDEAL | Interactions \times MES | Interactions \times IDEAL \times MES |
|----------------------------------------|-------------------------------------------|-------------------------------------------|------------------------------------------|------------------------------------------|
| Age | $\beta = -.096$ $F(1, 1217) = 12.84^*$ | | | |
| Sex | $\beta = +.053$ $F(1, 1217) = 28.75^*$ | | | |
| Male = 1 | | | | |
| C1 | $\beta = +.113$ $F(1, 1217) = 23.71^*$ | $\beta = +.046$ $F(1, 1217) = 0.05$ | $\beta = -.001$ $F(1, 1217) = 0.03$ | $\beta = -.018$ $F(1, 1217) = 0.22$ |
| General population vs. students | | | | |
| C2 | $\beta = +.123$ $F(1, 1217) = 12.25^*$ | $\beta = +.083$ $F(1, 1217) = 10.56^*$ | $\beta = -.075$ $F(1, 1217) = 5.57^*$ | $\beta = -.005$ $F(1, 1217) = 0.24$ |
| English vs. Spanish speakers | | | | |
| C3 | $\beta = -.136$ $F(1, 1217) = 17.86^*$ | $\beta = +.026$ $F(1, 1217) = 0.85$ | $\beta = -.012$ $F(1, 1217) = 0.41$ | $\beta = -.002$ $F(1, 1217) = 0.22$ |
| Glasgow vs. Tucson comparison | | | | |
| C4 | $\beta = -.148$ $F(1, 1217) = 33.01^*$ | $\beta = +.046$ $F(1, 1217) = 1.42$ | $\beta = -.034$ $F(1, 1217) = 1.89$ | $\beta = +.006$ $F(1, 1217) = 0.13$ |
| Talca vs. Hermosillo comparison | | | | |
| C5 | $\beta = -.007$ $F(1, 1217) = 0.54$ | $\beta = +.030$ $F(1, 1217) = 0.63$ | $\beta = -.025$ $F(1, 1217) = 0.82$ | $\beta = -.051$ $F(1, 1217) = 1.61$ |
| Testing the interaction of C1 & C2 | | | | |
| C6 | $\beta = +.058$ $F(1, 1217) = 4.96^*$ | $\beta = -.010$ $F(1, 1217) = 0.03$ | $\beta = +.026$ $F(1, 1217) = 1.68$ | $\beta = +.040$ $F(1, 1217) = 1.71$ |
| Testing the interaction of C1 & C3 | | | | |
| C7 | $\beta = -.012$ $F(1, 1217) = 1.30$ | $\beta = -.045$ $F(1, 1217) = 2.51$ | $\beta = -.029$ $F(1, 1217) = 0.14$ | $\beta = +.028$ $F(1, 1217) = 0.60$ |
| Testing the interaction of C1 & C4 | | | | |
| IDEAL | $\beta = -.042$ $F(1, 1217) = 1.19$ | | | |
| Ideal Romantic Partner Personality | | | | |
| MES | $\beta = +.252$ $F(1, 1217) = 85.90^*$ | | | |
| Mating Effort Scale | | | | |
| IDEAL \times MES | $\beta = -.077$ $F(1, 1217) = 1.33$ | | | |
| Testing the interaction of IDEAL & MES | | | | |

Notes. SIQ-R = Revised Sensational Interests Questionnaire; IDEAL = Ideal Romantic Partner Personality Factor; MES = Mating Effort Scale; * $p < .05$.

samples had lower SIQ-R scores than the Hermosillo samples ($\beta = -.148$).

Neither the interaction of C1 with C2 (C5) nor the interaction of C1 and C4 (C7) were statistically significant. On the other hand, C6, the interaction between C1 with C3, was statistically significant, indicating that the significant difference between the Glasgow general sample and the Glasgow student sample was higher than that between the Tucson general sample and the Tucson student sample on the SIQ-R ($\beta = .058$).

The main effect of IDEAL was not a statistically significant predictor of SIQ-R. However, even after accounting for the effects of culture and personality, MES was significantly and positively related to SIQ-R ($\beta = .252$). The IDEAL \times MES interaction was not significant.

There were only two significant interactions of the orthogonal contrast codes with the IDEAL, MES, or IDEAL \times MES predictors. The first was the C2 \times IDEAL interaction ($\beta = .083$); this interaction indicated that the

effect of IDEAL was statistically significant and positive for English-speaking samples and correspondingly significant and negative for Spanish-speaking samples. The second was the C2 \times MES interaction ($\beta = -.075$); this interaction indicated that the effect of the MES was lower for Spanish-speaking samples than for English-speaking samples.

Aggregated across all sites and samples, the simple bivariate correlation of MES with SIQ-R was 0.26 ($p < .0001$). When disaggregated by language, the correlation of MES with SIQ-R was .29 for English-speaking samples and .23 for Spanish-speaking samples, which were significantly different from each other. Aggregated across all sites and samples, the bivariate correlation of IDEAL with SIQ-R was $-.03$ (n.s.). When disaggregated by language, the correlation of IDEAL with SIQ-R was $-.16$ for English-speaking samples and $.16$ for Spanish-speaking samples, which were significantly different from each other and from zero.

Discussion

Testing the relationship between mating effort, personality, and sensational interests in general population and student samples across different cultures is a strong empirical test that this phenomenon is not exclusive to competitively disadvantaged (low mate value) males or mentally disordered offenders, a particular cultural setting, or one particular individual difference. We predicted that mating effort should be higher in males and lower in older individuals. Both predictions were upheld. We predicted that mating effort would be negatively correlated with a higher-order personality dimension comprised of higher E, lower P, and lower N, and that the higher-order personality dimension would relate to sensational interests; this was not found. However, mating effort did systematically relate to sensational interests. We expected sensational interests to be more prevalent in younger males and for sensational interests to differ between student and general population samples. Both predictions were supported, but our principal cross-cultural effect and the fulcrum of our main findings reflected differences between English- vs. Spanish-speakers.

Aggregating measures was highly effective in increasing their reliability and stability, with a systematic association between the MES and SIQ-R being apparent. Age, Gender, Site, and MES scores independently and significantly predicted the SIQ-R over the entire sample. When significant, interaction effects were minor. These results suggest that the SIQ-R is genuinely associated with mating effort, but that the associations the SIQ-R has with personality are more opaque, possibly being influenced by the site and the sample. We speculate that the cross-cultural effect reflects differences in the degree of Power Distance, Individualism vs. Collectivism, or Uncertainty Avoidance (Hofstede, 2001) for English- and Spanish-speaking communities, but these differences are confounded with language, and, hence, we cannot be sure. We have checked and excluded the possibility that our findings reflect problems with the translation or wrong scoring of the EPQ-RA in Spanish speakers. On the other hand, within the Spanish-speakers the samples from Hermosillo had higher SIQ-R scores than those in Talca. These samples do not differ with respect to language, but they do differ with respect to one of the Hofstede's (2001) cultural dimensions, Masculinity vs. Femininity. That sensational interests would be more prevalent in societies that value toughness, assertiveness, and material success, and lower in societies that value modesty and tenderness, should not be surprising. A further, related cultural dimension that may be salient is the integration of morbid imagery and ritual into conventional Amerindian-Hispanic and South American society, for

example, the tradition of *Dia de los Muertos* ("the day of the dead"; Garciagodoy, 1998).

The current study was ambitious in seeking to sample across a broad range of cultural, linguistic, and social settings and acquired information in settings not commonly used by researchers. We sought to examine the relationship between personality, mating effort, and sensational interests using an evolutionary model of personality to simplify predicted associations. This nontraditional approach to the use of information from the EPQ-RA reflected findings that seemingly orthogonal personality traits are often actually correlated (Egan, Deary, & Austin, 2000). Moreover, preliminary analyses using the traditional separate P, E, and N dimensions of the EPQR-A were inconsistent and overcomplicated a model better served by the aggregated higher-order personality construct. The interest in higher-order personality constructs is currently undergoing something of a resurgence, as higher-order factors provide a more theoretical interpretation of personality associations than simple correlations with configurations of separately measured traits (Blackburn, Renwick, Donnelly, & Logan, 2004). Nevertheless, we did not find that personality – as measured by the IDEAL construct – had any significant and generalizable association with the SIQ-R, whereas the MES was reliably and significantly associated. This leads us to propose that constructs related to mating effort, e.g., delinquency (Charles & Egan, 2005), are more valid associates of sensational interests – and that evolutionary constructs reflecting intrasexual competition and differential strategies underlying resource acquisition should be the main focus of future research in the field.

While mating effort appears a reliable predictor of sensational interests across cultures and differing socioeconomic strata within those societies, this is by no means the end of evolutionary concepts to inform the field. Mating effort does not differentiate persons with casual interests in sensational topics, for whom, for example, militarism or martial arts is a sporting pastime, as compared to persons who take an interest in militarism and martial arts, because they are interested in or aroused by the idea of hurting another person. Many young males engage in bravado to impress potential partners, and whether the person adopts lower-K or higher-K life history strategies is a potentially powerful additional predictor, as it would identify whether a person preferred short-term, high-risk gains (as would a person inclined to lower-K strategies) as compared to long-term, low-risk gains (a higher-K strategy).

We predict that the interaction of higher mating effort and low-K strategies would lead to higher SIQ-R scores. For most persons sensational interests probably reflect nothing but a cultural short-hand for presenting the self as being of greater potency and effectiveness than is the

case, and are transient. This may not be the case for competitively disadvantaged (low mate value) individuals. While all persons seek access to material, emotional, sexual, and social opportunities and resources, not all persons are equally able to access or acquire them. We predict that competitively disadvantaged individuals adhere to sensational interests for longer. This is because persons who adopt lower-K life history strategies choose this as a better way of obtaining difficult to acquire resources, and integrating the latent constructs of sensational interests – power and dominance – into their personal value system legitimizes their life-history strategy. Further studies seek to examine these possibilities.

Acknowledgments

We would like to thank Sarah Berry, Sandy Garza, Nikki Grossman, Sarah Kelly, Elena Pastella, Erin McKiernan, Andy Meyer, Melissa Sisco, Ilanit Tal, and Alexander Weiss for helping to collect and enter the data. Thanks also to Martha Frías-Armenta and Victor Corral-Verdugo for hosting some of our data collectors in Hermosillo, Sonora. This study was greatly assisted by Alex Weiss's constructive comments.

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