

## TYPING THE WORRIER: RELATIONSHIP BETWEEN WORRY AND JUNG'S PERSONALITY TYPES

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This study examined the relationship between worry and Jung's dimensions of psychological type. University students ( $N = 121$ ) completed the Three Item Worry Index (Kelly, 2004) and the Jung Type Indicator (Budd, 1993). The results indicated that worry was significantly related to Jung's Introversion and Feeling dimensions. The results and suggestions for future research were posited.

Worry has been defined as a series of uncontrollable thoughts and images that create negative emotions and the development of a persistent level of fear (Kelly & Miller, 1999). Previous research indicated that there are different degrees to which people experience worry, how it influences behavior, and how it is managed. For example, in one study, 38% of the participants reported that they experience worry everyday and 72% indicated that they worry at least once a month (Tallis, Davey, & Capuzzo, 1994). Although the tendency to worry appears to be a continuum (Ruscio, Borkovec, & Ruscio, 2001), characterizing experiences related to worry is somewhat easier to conceptualize if one distinguishes between what in this article we will term *worriers* — individuals who worry frequently, and *nonworriers* — individuals who are less prone to experience worry.

A key element characterizing worriers is the tendency to experience anxiety and stress (Davey, Hampton, Farrell, & Davidson, 1991; Kelly, 2008). Anxiety and stress for worriers appears highest when considering making mistakes, being criticized, and meeting people (Pruzinsky &

Borkovec, 1990). These findings have been substantiated by research indicating worriers' tendencies to experience perfectionism (Chang, 2000), pessimism (Stober & Joormann, 2001), and intolerance for uncertainty (Dugas, Gosselin, & Ladouceur, 2001). Worriers have also scored higher on public self-consciousness than nonworriers in addition to developing anxiety when placed in social settings (Pruzinsky & Borkovec, 1990). The almost continuous anxiety of the worrier likely influences their proneness to experience many somatic discomforts (Jung, 1993) and less life satisfaction (Paolini, Yanez, & Kelly, 2006).

The purpose of this study is to explore the relationship between worry and Jung's (1921) model of psychological types. Jung's model suggests that the superordinate dimension of personality is introversion and extraversion (I/E). Introverts are likely to relate to the external world by listening, reflecting, being reserved, and having focused interests (Francis, Craig, & Robbins, 2007). Extraverts on the other hand, are adaptable and in tune with the external world. They prefer interacting with the outer

world by talking, actively participating, being sociable, expressive, and having a variety of interests (Francis et al., 2007).

Jung (1921) identified two other dimensions of personality: Intuition - Sensing (I/S) and Thinking - Feeling (T/F). Sensing types tend to focus on the reality of present situations, pay close attention to detail, and are concerned with practicalities (Myers, 2000; Woolhouse & Bayne, 2000). Intuitive types focus on envisioning a wide range of possibilities to a situation and favor ideas, concepts, and theories over data (Jung, 1921). Individuals who score higher on intuition also score higher on general intelligence and aptitude tests (Moutafi, Furnham, & Crump, 2003; Myers & McCaulley, 1985; Kaufman, McLean, & Lincoln, 1996).

Thinking types use objective and logical reasoning in making their decisions (Francis, Nash, Nash, & Craig, 2007), are more likely to analyze stimuli in a logical and detached manner (Village & Francis, 2005), be more emotionally stable (Furnham, Moutafi, & Paltiel, 2005), and score higher on intelligence (Furnham et al., 2005). Feeling types make judgments based on subjective and personal values. In interpersonal decision-making, feeling types tend to emphasize compromise to ensure a beneficial solution for everyone (Francis et al. 2007). They also tend to be somewhat more neurotic than thinking types (Furnham et al., 2005).

After being inspired by Jung's approach to psychological type, Briggs and Myers combined other elements of Jung's theory of personality and added a separate dimension called Judging - Perceiving (J/P) (McCaulley, 2000). The Judging type

may prefer to plan ahead and organize information, whereas a Perceiving type may hesitate in their decision-making until they have as much information as possible and be unstructured in their planning (Francis, Craig, & Robbins, 2007).

Although the research on worry has increased over the past two decades, little is known of worry's relation to personality superfactors (Kelly & Miller, 1999). In one of the only studies investigating personality superfactors and worry, Gilbert (1996) found a positive relationship between worry and neuroticism of the Five-Factor Model of Personality (FFM; Norman, 1963). Research comparing Jung's types and the FFM found that neuroticism was correlated with introversion and feeling (McCrae and Costa, 1989; Moutafi et al., 2003). Other research found a significant relationship between Jung's Introversion/Extraversion dimensions with neuroticism (Francis, Craig & Robbins, 2007). The results of another study also found the T/F dimension to be negatively correlated with neuroticism (Furnham, 1996).

Using a nomological network approach (Cronbach & Meehl, 1955), it was hypothesized that because the variance of worry appears to be shared with the personality superfactor neuroticism and neuroticism has been found to share variance with the Jungian type dimensions of Introversion and Feeling, worry should significantly correlate with the Jungian type dimensions Introversion and Feeling.

## Method

### *Participants and Procedures*

After providing informed consent, a convenience sample of 121 (99 female) students enrolled in undergraduate psychology courses, including many "non-traditional" students, completed the measures described below. The average age of the sample was 27.1 years ( $SD = 8.2$ ).

### *Measures*

*Three Item Worry Index (TIWI; Kelly, 2004).* Worry was assessed using the TIWI, a three item self-report questionnaire to which participants respond to using an 11-point anchored response scale ranging from 0 (never or not at all) to 10 (continuously or very much). A sample item is "How often do you worry?" Responses were summed to produce a total score. Higher scores indicated more worry. Kelly found the TIWI to possess good internal consistency reliability ( $\alpha = .91$ ), and account for 85% of the systematic variance of a single factor. Kelly also reported support for the validity of the TIWI through correlations with other measures worry and trait anxiety.

*Jung Type Indicator (JTI; Budd, 1993).* The 60-item JTI assesses the four Jung dimensions: I/E, S/N, T/F, and J/P. Each dimension is measured by 15 self-report items. Participants responded using a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Budd (1993) reported that the JTI demonstrated satisfactory internal consistency (.81 - .87) and test-retest reliability (.79 - .92, 3 months). Budd also reported that all JTI dimensions correlated strongly ( $> .90$ ) with the

Myers-Briggs Type Indicator (Myers & McCaulley, 1985), often considered the gold standard measure of Jung's types, indicating strong criterion validity. Budd reported that JTI items loaded on expected factors representing the Jungian personality dimensions. Responses were summed to produce total scores for each of the four dimensions. Higher scores, for the appropriate factors, represent more extraverted, intuitive, feeling, and judging types. A sample item is "I often phone friends just for a chat" (extraversion factor).

## Results

An alpha rate of  $p < .05$  (two-tailed) was set for all significance tests. Means, standard deviations, coefficient alphas, and correlations among variables are presented in Table 1. As seen in the table, TIWI scores were significantly correlated with introversion of the I/E dimension and feeling of the T/F dimension. TIWI scores were not significantly correlated with the S/N or J/P dimensions. Based on the findings, we can relatively confidently conclude that worriers tend to be I-Fs in Jung's typology. The sample size was much too small to test for differences among all possible 16-types (i.e., INFP, ESTJ, etc.). Hence,, finding a definitive type of the worrier was not possible in this study. If one were to very *tentatively* and *cautiously* attempt to determine a worrying type based on the correlations presented in Table 1, it appears that worriers are closest to an INFP Jungian type. Please note, however, the S/N and J/P dimensions are very small correlations and thus difficult to distinguish with any precision.

Table 1

## Descriptive Statistics, Coefficient Alphas, and Correlations between Variables

Variable	I/E	S/N	T/F	J/P	<i>M</i>	<i>SD</i>	Alpha
I/E					46.88	9.78	.84
S/N	.02				45.94	8.62	.83
T/F	.07	.01			53.92	6.54	.72
J/P	.05	-.19*	.21*		49.12	7.61	.78
TIWI	-.18*	.07	.22*	-.01	18.53	6.46	.94

Note: *N* = 121. I/E = Introversion – Extraversion; S/N = Sensing – Intuition; T/F = Thinking – Feeling; J/P = Judging – Perceiving; TIWI – Three Item Worry Index.

\**p* < .05 (two-tailed)

### Discussion

The results of this study were consistent with the hypotheses; worry was significantly related to introversion and feeling. These findings are consistent with previous studies finding a correlation between neuroticism and worry (Gilbert, 1996) and relations between neuroticism and introversion and feeling (Francis et al., 2007; Furnham, 1996; McCrae & Costa, 1989; Moutafi et al., 2003).

The relationship between worry and introversion and feeling observed in this study may be explained in several ways. It may be that introverts, as posited by Jung (1921), are more focused on their inner worlds and thus worry about issues that are relevant to the self (i.e., Tallis, Eysenck, & Mathews, 1991). Therefore, given that introverts enjoy solitude and reflection (Francis, Craig & Robbins, 2008), the inclination to continue to worry increases.

Moreover, individuals scoring higher on feeling tend to base judgments on subjective and personal values (Francis, Craig, & Robbins, 2007) and identify the emotional significance of events and items (Furham, Moutafi, & Crump, 2003). It is possible that as feeling individuals try to place meaning on situations, their more emotional style may provide more opportunities for worrying. In addition, since feeling individuals are concerned with peace and harmony (Francis, Nash, Nash, & Craig, 2007), it may be that they tend to worry more due to the possible barriers that could hinder these desires.

Examining the findings from a worrier-perspective, individuals who worry often tend to perceive even benign events as potentially threatening and react with negative affect to stressful or ambiguous situations (Borkovec, 1994; Chang, 2000). Thus, the worrier's tendency to experience

a fearful affect, could be manifested in Jung's feeling type. Similarly, worry has shown robust correlations with shyness and fear of social situations (Cowden, 2005). The worrier's tendency to be fearful of social situations might make them appear more withdrawn, which, based on an examination of the items, seems to be a primary component of the JTI operationalization of introversion.

There are several limitations of the current study which should be considered when attempting to generalize the results. First, the relatively small, homogeneous (white, female, college students) sample may not be representative to other populations. Second, the measures used were self-report. Hence, accuracy of their results cannot be assured. Third, the correlational design of the study does not allow a cause-effect relationship to be inferred. Regardless, the findings provide not as yet published findings which extend our understanding of the personality of worriers and introverted and feeling types. Future research is needed to correct the limitations of this study and extend the findings by examining possible mediating variables.

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