

# Four Meanings of Introversion: Social, Thinking, Anxious, and Inhibited Introversion

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Guilford demonstrated in the 1930s that the various attempts at transforming Jungian and other conceptualizations of Introversion-Extroversion into personality questionnaires were resulting in ambiguous multiple-factor scales. Proposed measurement models subdividing introversion into components resulted in heated but inconclusive debate, as exemplified by the exchange between Eysenck and Guilford in 1977 and seen again in the critique of Lucas, Diener, Grob, Suh, and Shao (2000) by Ashton, Lee, and Paunonen (2002). Carrigan (1960) argued that introversion was not effectively captured as a unitary construct, and pressure to clearly define introversion with a comprehensive conceptual and operational model continues (e.g., Block, 1995; 2010).

The many meanings of introversion leave contemporary researchers with an unresolved dilemma: despite the persistent conceptual ambiguity and lack of a universally accepted measurement model, interest in the topic and demand for measures seems to be increasing (e.g., Laney, 2002; <http://www.thepowerofintroverts.com>). The purpose of the present research was to return to recommendations made by previous generations of psychologists such as Guilford and Guilford (1934) and Murray (1938) that four or five factors might be needed to account for the meaningful distinctions that exist within the broad personality dimension termed “introversion-extraversion.” We identified contemporary personality measures that can be usefully organized into measurement domains that reflect coherent meanings of “introversion.”

## METHOD

The nineteen personality scales presented in Table 1 were administered to 225 female students. These measures were grouped by examination of intercorrelations and factor loadings into four domains of introversion.

Table 1: Personality Measures Included in Each of the Four Domains of Introversion

<b>Domain 1: Social Introversion</b>
Preference for Solitude (Burger, 1995) [.83]
Positive Stimulation subscale of the Interpersonal Orientation Scale: (Hill, 1987) (R) [.75]
Gregariousness Facet of the NEO-PI Extraversion scale (Costa & McCrae, 1992) (R) [.88]
Warmth Facet of the NEO-PI Extraversion scale (Costa & McCrae, 1992) (R) [.80]
<b>Domain 2: Thinking Introversion</b>
Introspectiveness (Fenigstein, Scheier, & Buss, 1975; Guilford, 1959) [.64]
Fantasy subscale of the Interpersonal Reactivity Index (Davis, 1983) [.58]
Openness Scale of the Big Five Inventory (John, Donahue, & Kentle, 1991) [.76]
Personal Identity Orientation (Cheek, 1989) [.69]
Rich Inner Life factor of the Highly Sensitive Person Scale (Aron & Aron, 1997; Cheek et al., 2009) [.78]
<b>Domain 3: Anxious Introversion</b>
Shyness (Cheek & Melchior, 1985) [.83]
Rumination (Trapnell & Campbell, 1999) [.70]
Temperamental Sensitivity factor of the Highly Sensitive Person Scale (Aron & Aron, 1997; Cheek et al., 2009) [.77]
Hypersensitive Narcissism (Hendin & Cheek, 1997) [.77]
Positive Emotions Facet of the NEO-PI Extraversion scale (Costa & McCrae, 1992) (R) [.54]
Assertiveness Facet of the NEO-PI Extraversion scale (Costa & McCrae, 1992) (R) [.68]
<b>Domain 4: Inhibited Introversion</b>
Sensation-seeking subscale of EASI Impulsivity (Buss & Plomin, 1975) (R) [.70]
EASI Activity (Buss & Plomin, 1975) (R) [.84]
Excitement-seeking Facet of the NEO-PI Extraversion scale (Costa & McCrae, 1992) (R) [.70]
Activity Facet of the NEO-PI Extraversion scale (Costa & McCrae, 1992) (R) [.85]

Note: (R) indicates scales that were reverse-scored from the direction of extraversion to the direction of introversion. Numbers in square brackets are the loadings for each scale on the first unrotated factor of the measures within each domain (i.e., from four separate principal component analyses).

## RESULTS

Correlations among factor scores representing these domains indicated moderate convergence among social, anxious, and inhibited introversion (rs averaging around .50). Thinking introversion, however, did not correlate significantly with any of the other three domains (see Table 2).

Table 2: Correlations among Factor Scores for Measures of Each Introversion Domain

	Social Introversion	Thinking Introversion	Anxious Introversion
Thinking Introversion	-.05		
Anxious Introversion	.46*	-.01	
Inhibited Introversion	.57*	-.15	.49*

N = 225 \* p < .01.

## CONCLUSION

The results for the Thinking factor raise the question of whether or not it should be considered a domain of introversion at all. The constructors of one of the scales defining that domain asserted that “the private dimension of self-consciousness is similar to the Jungian conception of introversion” (Fenigstein et al., 1975, p. 525). Moreover, after more than 40 years of research on the measurement of personality dimensions, Guilford (1977) argued that thinking introversion was essential to the definition of the higher order factor of introversion-extraversion. The status of thinking introversion would be a promising target for further research.

We agree with Carrigan’s conclusion that when researchers use the term introversion “care must be taken to specify its conceptual and operational referent” (1960, p. 358). Rather than using the word by itself, researchers should put a specific modifier in front of it, whether it be Jungian introversion, or Eysenckian, or Big Five, or one of the four domains presented in the present research: social, thinking, anxious, or inhibited introversion.

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