EXAMINING THE STRUCTURE OF OPENNESS TO EXPERIENCE

by

JOSHUA JOSEPH PEARMAN

(Under the Direction of Dorothy R. Carter)

ABSTRACT

Openness to Experience is one of the five core traits comprising the Five Factor Model of personality. However, scholars have yet to agree on a clear definition of Openness, as evidenced by a proliferation of models examining the trait's lower-level structures (McCrae & Sutin, 2009; Saucier & Iurino, 2020). The goal of this thesis is to reconcile different conceptualizations of Openness and better clarify the structure and core facets of the construct. Participants (N = 669; 57% female; 77% White; M_{age} = 25-34) completed 334 items from scales measuring Openness and other related constructs. I applied Goldberg's (2006) Bass-Ackwards factor analytic approach to identify the unfolding facet structure of Openness. A 10-factor solution emerged and was identified as most appropriate. The identified domain and facets of Openness were correlated with a diverse set of external variables (cognitive ability, Need for Cognition, Typical Intellectual Engagement), establishing construct validity across the structure.

INDEX WORDS: Openness, personality structure, Big Five, Five-Factor Model

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CHAPTER 1

INTRODUCTION

Openness to Experience is a personality trait reflecting a person's interest in new sources of stimulation (e.g., experiences, sensations) and desire to seek out novelty and complexity (John & Srivastava, 1999; McCrae, 1990; Winter & Barenbaum, 2008; Woo et al., 2014a). Openness is an important predictor of outcomes in both daily life and in the workplace. For example, Openness is associated with intelligence and creativity (Ackerman & Heggestad, 1997; Harris et al., 2019; Silvia et al., 2009), health outcomes, such as people's ability to regulate stress or identify schizotypy (Bucher et al., 2021; Súilleabháin et al., 2018; Williams et al., 2009), and work outcomes, such as task performance, leadership effectiveness, and turnover (Judge et al., 2014; Woo et al., 2014b).

However, despite general consensus surrounding the importance of Openness, there is an ongoing debate about the trait domain's true structure and idiosyncrasies across models Openness (Connelly et al., 2014; Christensen et al., 2018; Woo et al., 2014a). The proliferation of Openness models raises questions about the validity of the trait's proposed facets (Connelly et al., 2014), which in turn, raises questions about its predictive validity and associated behaviors.

The goal of this thesis is to help resolve the lack of clarity surrounding the facets of Openness, by applying an analytical framework known the Bass-Ackward approach to derive the hierarchical factor structure of the trait (Crowe et al., 2017; Goldberg, 2006). This approach helps identify the interrelations of Openness' domains across the structure. Previous studies have applied this process to clarify the hierarchical structure of Extraversion (Watson et al., 2015),

Conscientiousness (Roberts et al., 2005), and Agreeableness (Crowe et al., 2017). Although prior research on Openness has applied a factor analytic approach that is similar to the Bass-Ackward approach to derive the facets of Openness (Woo et al., 2014a), previous work was limited due to the lack of inclusion of more recent personality inventories, emphasizing analysis on the facet-level of scales, and not establishing convergent or divergent validity with constructs beyond other FFM traits. Therefore, in this thesis, I broadened the scope of the analyses by including a wider range of constructs and measures, and performing EFAs at the item-level instead of the facet-level. Crowe et al. (2017) note that factor analyses at the item-level can increase the factor structure's potential flexibility, which in turn can increase the stability of identifying stable facets in a lower-order structure. Beyond examining factor structure, another key step in determining the nature of Openness is to establish convergent validity in the trait's facets with related constructs, including intelligence (DeYoung et al., 2014; Saucier, 1992; Stanek, 2014), Need for Cognition (Roets & Van Hiel, 2011), and Typical Intellectual Engagement (Ackerman & Heggestad, 1997; Goff & Ackerman, 1992). Therefore, I examined the trait's hierarchical structure across multiple measures using an empirically-driven, factor analytic approach (Goldberg et al., 2006). To further refine Openness' structure, I examined the construct validity of the identified lower-order structure of Openness across a diverse set of constructs. At the domain and aspect level, there is evidence that Openness is a useful construct. Studying the facets of Openness will help further develop understanding and measurement of the trait, as well as have key implications for understanding how the trait is connected to key outcomes of interest (e.g., health, team composition, selection).

CHAPTER 2

MODELS OF OPENNESS

A primary goal of research on Openness has been to identify the trait's structure. Current consensus over the higher-order structure of Openness suggests it can be divided into the aspects of Experiencing and Intellect (Christensen et al., 2018; DeYoung et al., 2007; McCrae, 1990; McCrae & Sutin, 2009; Woo et al., 2014a). At lower-levels, Openness is thought to capture a variety of facets including aesthetic appreciation, intellect, tolerance, creativity, and inquisitiveness (DeYoung et al., 2007; Collins et al., 2004; Goff & Ackerman, 1992; Goldberg et al., 2006; Lee & Ashton, 2006; Simms, 2009; Soto & John, 2017; Woo et al., 2014a). Further, prior research has demonstrated associations between Openness and intelligence, wisdom, imagination, culture, creativity, perceptiveness, curiosity, and other related concepts (Connelly et al., 2014; McCrae & Costa, 1983; Peabody & Goldberg, 1989; Saucier & Ostendorf, 1999). However, prior research examining the lower-order structure of Openness has also led to a proliferation of models and facets and a lack of consensus regarding which facets should be included in the trait and how they are structured hierarchically (Christensen et al., 2018; Connelly et al., 2014; DeYoung et al., 2007; Silvia et al., 2009; Woo et al., 2014a).

Current models of Openness are primarily based on three methodological approaches: a literature review approach, the intuition of subject matter experts, and factor analysis in lexical studies. Therefore, one explanation for the proliferation of facets across models of Openness is the methodological differences across theory-driven versus empirically-driven approaches. For

example, Connelly et al. (2014) note that lexical studies often give greater weight to the Intellect aspect of Openness compared to the Culture aspect because words capturing Intellect are better captured in single-word adjectives compared to words capturing Culture. In contrast, models informed through a literature review or subject matter expert approach may produce models that could be contaminated by other constructs that overlap with Openness.

The Lexical Approach

The lexical approach refers to the notion that important traits are observable through associated words used in natural language (John & Srivastava, 1999; Simms, 2009). One frequently used personality measure is the Big Five Inventory 2 (BFI-2; Soto & John, 2017), which is a revised version of the BFI (John et al., 1991). In the original BFI, two facets of Openness were identified using the lexical approach: aesthetics and ideas. However, a weakness of the original BFI is the *bandwidth-fidelity dilemma* (Ones & Viswesvaran, 1996), such that as traits are defined more narrowly, they are able to predict behaviors with greater precision and accuracy. The BFI was developed as a broad, domain-level scale (John et al., 1991) and lacked the high fidelity necessary for capturing lower-level facets. Therefore, the revised BFI-2's model developed the measure's fidelity, resulting in three Openness facets: intellectual curiosity, aesthetic sensitivity, and creative imagination.

The HEXACO (Lee & Ashton, 2004) is a 6-factor model of a personality. The HEXACO organizes Openness into four facets: aesthetic appreciation, inquisitiveness, creativity, and unconventionality. Like the BFI, the HEXACO was developed using the lexical approach. Although the HEXACO redistributes variance from the Big Five to an additional factor, this does not significantly affect variance captured by Openness (Ashton et al., 2014).

The Literature Review / Construct Validation Approach

The literature review approach refers to the creation of a measure that begins by clearly defining a construct based on theory (Simms, 2009), which then informed the scale development and validation process. In the Faceted Inventory of the Five Factor Model (FI-FFM; Simms, 2009), Openness is divided into three facets: intellectance (e.g., creativity, artistic appreciation), novel experience seeking (e.g., curiosity, tolerance), and non-traditionalism (e.g., unconventionality, liberal). The FI-FFM was developed through a construct validation approach, which involved conducting an extensive literature review to develop the subdomains for each personality trait.

The International Personality Item Pool 120 (IPIP-120; Goldberg et al., 2006; Maples et al., 2014) is a public-domain personality measure based on the IPIP-NEO that distributes Openness into six facets: imagination, artistic interests, emotionality, adventurousness, intellect, and liberalism. The IPIP was originally constructed to represent the facets covered by the Revised NEO Personality Inventory (NEO PI-R; Costa & McCrae, 1992). Similar to the FI-FFM, the NEO PI-R defined the facets of each personality trait through literature review (Costa et al., 1991). The IPIP-120 applies item response theory to refine the IPIP-NEO by selecting the items that demonstrated the greatest measurement precision across different trait levels.

Integrative / Subject Matter Expert Approaches

Recent studies of Openness have relied on empirical approaches combined with subject matter expert perspectives to determine the key facets. These approaches often seek to integrate previous models in order to better clarify the hierarchical structure of Openness. For example, the Big Five Aspects Scale (BFAS; DeYoung et al., 2007) was designed using an empirical approach that examined relationships among other Big Five personality scales. Results from

these analyses were used to inform the design of a measure that connected domains with facets, establishing an early model of personality structure. The BFAS assigns two aspects to Openness: intellect (e.g., quickness, ingenuity, ideas), and openness (e.g., aesthetics, imagination, fantasy).

More recently, Woo et al. (2014a) developed the Openness to Experience Inventory using exploratory factor analysis combined with subject matter expert perspectives. First, Woo et al. conducted exploratory factor analyses of Openness using multiple personality inventories in order to generate 6 facets: intellectual efficiency, ingenuity, curiosity, aesthetics, tolerance, and depth which were based on subject matter expert consensus. The authors organized these facets into two aspects: Intellect, which captures openness to intellectual engagement, and Culture, which captures openness to artistic and aesthetic interests. The first aspect, Intellect, loads onto the facets of intellectual efficiency, ingenuity, and curiosity. The second aspect, Culture, loads onto the facets of aesthetics, tolerance, and depth. This model of Openness informed the development of the Openness to Experience Inventory. Notably, the aspects of intellectual efficiency, ingenuity, and curiosity correlated moderately with the Big Five trait of Extraversion. The researchers attribute this to the metatrait of plasticity, a higher-order factor that encompasses Openness and Extraversion (DeYoung, 2006; Digman, 1997). The study established convergent and divergent validity for the Openness to Experience Inventory, but primarily in relation to other FFM traits.

Christensen et al. (2018) applied a network psychometric to generate 10 Openness facets: aesthetic appreciation, diversity, fantasy, imaginative, intellectual curiosity, intellectual interests, non-traditionalism, openness to emotions, self-assessed intelligence. The authors find that across different measures of Openness, the Openness to Experience Inventory (Woo et al., 2014a) and the NEO-PI-3 (McCrae et al., 2005) showed the greatest coverage across all 10 network-

identified facets. Yet, the Christensen et al.'s (2018) structure of three aspects across 10 facets did not match Woo et al.'s (2014a) structure of two aspects across six facets, nor the NEO-PI-3's structure of eight facets. Instead, the authors advanced a new framework of Openness that covered a broader content domain, with the intent that this broader domain will reflect a more accurate hierarchical structure.

Addressing Limitations of Prior Research on Openness

Attempts to integrate different models of Openness and identify a common structure have yet to result in consensus over which facets are important and how they should be organized (Christensen et al., 2018; DeYoung et al., 2007; Woo et al., 2014a). Potentially, this is because previous studies of Openness demonstrate the domain's structure is affected by the analytical approach (e.g., lexical approach, construct validation), which in turn creates heterogeneity at the aspect and facet-level (Christensen et al., 2018; Connelly et al., 2014; Saucier & Iurino, 2020; Woo et al., 2014a). In the current literature, the number of aspects or facets in Openness can range anywhere between two to six. I address these issues by taking the lower-order facets derived from the bass-ackward factor analytic technique and identify their divergent and convergent validity with measures adjacent to Openness (Crowe et al., 2017; Goldberg et al., 2006).

Further, a secondary goal of this thesis that has not been thoroughly addressed by prior work examining the structure of Openness across multiple measures is to examine the construct validity of the trait's facets. Although increasing the specificity of Openness' facets can help resolve the bandwidth-fidelity dilemma, that is distinct from expanding a trait until it overlaps excessively with other psychological constructs. For example, Christensen et al. (2018) proposes that openness to emotions is an important facet, and that this facet is examined in the Openness

to Experience Inventory (Woo et al., 2014) and the NEO-PI-R (McCrae et al., 2005). In contrast, Simms' (2009) FI-FFM measure eliminates the similar Emotional Resonance facet from Openness, as results indicated that it showed stronger relationships with both Extraversion and Agreeableness. The same criticism applies to other constructs that overlap with Openness, including intelligence (DeYoung, 2019; DeYoung et al., 2014; Saucier, 1992; Stanek, 2014), typical intellectual engagement (Ackerman, 1997; Ackerman & Heggestad, 1997; Goff & Ackerman, 1992), perceptual curiosity (Cacioppo et al., 1984), need for closure (Collins et al., 2004), and need for cognition (Roets & Van Hiel, 2011). Therefore, clarifying the structure of Openness will require identifying whether specific lower-order facets reflect adjacent constructs in the expected direction. The issue of construct validity suggests that another interpretation of Christensen et al. (2018) is that the measures from the Openness to Experience Inventory (Woo et al., 2014) and the NEO-PI-R (McCrae et al., 2005) are positively correlated with constructs that are more divergent from Openness compared to other personality measures, and therefore should not be used to assess the domain.

In summary, this thesis has two main goals. First, I aim to identify the structure of Openness using the "Bass-Ackwards" hierarchical factor analytic approach (Crowe et al., 2017; Goldberg, 2006). Applying this approach will generate potential factor solutions and the correlations between different levels of these solutions for Openness, revealing the unfolding structure of the trait domain. Second, I propose to examine the construct validity of Openness facets by examining relationships with adjacent constructs and outcomes of interest. By addressing these two goals, I will be able to establish a foundation for understanding the unfolding nature of Openness, and how the resulting structure's facets are distinctly associated with various external variables.

CHAPTER 3

METHODS

Participants and Procedure

A total of 703 participants were recruited for this study using Prolific, a website for collecting data from human subjects. Participants were required to be 18 years or older and to reside in the United States. Each participant was paid $7.00 for their participation. Participants were asked to complete a self-report survey which included 334 items drawn from multiple measures of Openness, related constructs, and two validity scales (see Table 1). Participants were excluded from my analyses for failing one or both of the validity scales, or for failing to complete more than 50% of the survey items. After these steps, I retained survey data from 669 participants (57% female; 77% White; M_{age} = 25-34).

Survey Design

All items from the Openness measures described in the following sections (and summarized in Table 1) were collapsed into a single scale of 159 items. All measures after Openness, cognitive ability, and divergent thinking were presented in random order. Participants rated their agreement to each item on the same 1 (*Strongly disagree*) to 5 (*Strongly agree*) scale. To reduce content overlap ahead of time (e.g., item duplicates or extremely similar items), I removed 8 items across the Openness measures. The removed items were, “See beauty in things that others might not notice” (IPIP-NEO), “Do not like poetry” (R) (IPIP-NEO), “Avoid philosophical discussions (R)” (IPIP-NEO), “Have difficulty understanding abstract ideas” (IPIP-NEO), “Avoid philosophical discussions” (BFAS), “Sometimes I avoid getting involved in

philosophical discussions (R)" (Openness Inventory), "Has little interest in abstract ideas (R)" (BFI-2), and "Is curious about many different things" (BFI-2). Therefore, the final scale administered to participants consisted of 151 items.

Measures of Openness

Big Five Inventory 2 (BFI-2). The BFI-2 (Soto & John, 2017; 12 Openness items) is a 60-item measure of the Big Five personality domains (Extraversion, Agreeableness, Conscientiousness, Neuroticism, Openness). Participants were presented with 12 items from the Openness trait.

Big Five Aspects Scale (BFAS). The BFAS (DeYoung et al., 2007; 20 Openness items) is a 100-item measure that separates the Big Five personality domains into aspects, such that each domain has two aspects. In this study, only Openness items from the BFAS were collected. The Openness facets of the BFAS contains 20 items: 10 items for the aspect of Intellect, and 10 items for the aspect of Openness. Participants were presented with 20 items from the Openness trait's facets of Intellect and Openness.

Faceted Inventory of the Five-Factor Model (FI-FFM). The FI-FFM (Simms, 2009; 33 Openness items) is a 296-item measure of the Big Five personality domains developed through a construct validation approach. In this study, only Openness items from the FI-FFM were collected. The FI-FFM Openness domain contains three facets: intellectance, novel experience seeking, and non-traditionalism. Participants were presented with 33 items from the Openness trait's facets of intellectance, novel experience seeking, and non-traditionalism.

HEXACO-PI-R. The HEXACO-PI-R (Lee & Ashton, 2006; 16 Openness items) is a 100-item measure of six personality domains: Honesty-Humility, Emotionality, Extraversion, Agreeableness, and Openness to Experience. Each domain contains four facets. In this study,

only Openness items from the HEXACO-PI-R were collected. The HEXACO-PI-R Openness domain contains four facets: aesthetic appreciation, inquisitiveness, creativity, and unconventionality. Participants were presented with 16 items from the Openness trait's facets of aesthetic appreciation, inquisitiveness, creativity, and unconventionality.

International Personality Item Pool NEO-PI-R (IPIP-NEO-PI-R). The IPIP (Goldberg et al., 2006; 36 Openness items) is a collection of publicly available items and scales. 36 Openness items were collected from the 120-item IPIP-NEO-PI-R (Maples et al., 2014), representing 6 facets: imagination, artistic interests, emotionality, adventurousness, intellect, and liberalism. Participants were presented with 24 items from the Openness trait's facets of imagination, artistic interests, emotionality, adventurousness, intellect, and liberalism.

Openness to Experience Inventory. The Openness to Experience Inventory (Woo et al., 2014a) is a 54-item measure of Openness. This inventory represents 6 facets: intellectual efficiency, ingenuity, curiosity, aesthetics, tolerance, and depth. Participants were presented with all 54 items from the Openness Inventory.

Measures of Related Constructs

Creative Achievement Questionnaire (CAQ). The CAQ (Carson et al., 2005) is a measure that examines achievement in 10 creative domains: Visual Arts, Music, Dance, Architectural Design, Creative Writing, Humor, Inventions, Scientific Discovery, Theater/Film, and Culinary Arts. Each domain includes 7 levels of achievement.

Cognitive Ability: ICAR. The ICAR (Condon & Revelle, 2014) is a 60-item measure of cognitive ability. Participants were presented with 10 items from the Verbal Reasoning and Letter and Number series.

Cognitive Ability: Sandria Matrices. The Sandria Matrices measure is a pattern-based intelligence test. 10 items from Test #1 were administered to subjects.

Divergent Thinking Tasks. The divergent thinking task (Torrance, 1968) examines a person's creativity through specific activities. We used four questions, two for the Guessing Consequences task, and two for the Unusual Uses task. An example item of the Unusual Uses task is "List as many alternative uses as you can think of for a wooden board." An example item of the Guessing Consequences task is "Imagine that people no longer needed to sleep. Please name as many possible benefits or downsides to this as you can."

Left-Wing Authoritarianism (LWA). The LWA-13 is a 13-item brief measure of left-wing authoritarianism (Costello et al., 2021; Costello & Patrick, 2022). This measure assesses three facets: anti-hierarchical aggression, anti-conventionalism, and top-down censorship.

Right-Wing Authoritarianism (RWA). The RWA is a 15-item brief measure of right-wing authoritarianism (Zakrisson, 2005). This measure assesses three facets: authoritarian aggression, authoritarian submission, and conventionalism.

Need for Closure (NFC). The NFC (Roets & Van Hiel, 2011) is a 15-item brief measure of the Need for Closure Scale. The NFC measures a person's desire for closure across 5 facets: order, predictability, decisiveness, ambiguity, and close-mindedness. Participants were presented with 15 items across 5 facets from the NFC.

Need for Cognition Scale (NCS). The short form of the NCS (Cacioppo et al., 1984) is an 18-item brief measure of the Need for Cognition Scale. The NCS captures a person's tendency to engage in effortful cognitive tasks. Participants were presented with 18 items from the NCS.

Perceptual Curiosity Scale. The Perceptual Curiosity Scale (Collins et al., 2004; 12 diversive and specific perceptual curiosity items) is a 33-item measure that captures a person's interest in novel perceptual stimulation. In this study, only items related to the diversive (PC/D) and specific (PC/S) subscales from the Perceptual Curiosity Scale were collected. Participants were presented with 12 items from the Perceptual Curiosity Scale.

Extraversion, Agreeableness, Conscientiousness, Neuroticism: Personality Item Selection. The Personality Item Selection is a 60-item brief measure of the Big Five Personality Domains (Extraversion, Agreeableness, Conscientiousness, Neuroticism, Openness). Participants were presented with 48 items from the Extraversion, Agreeableness, Conscientiousness, and Neuroticism traits.

Interests: 18REST. The 18REST (Ambiel et al., 2018) is a brief 18-item measure adapted from the RIASEC-interest assessment used to predict educational and vocational outcomes. This inventory represents 6 facets: realistic, investigative, artistic, social, enterprising, and conventional. Participants were presented with 18 items from the 18REST.

Schizotypal Personality Questionnaire - Brief Revised (SPQ-BR). The SPQ-BR (Cohen et al., 2010) is a brief 32-item measure of schizotypy. This inventory represents 4 factors: cognitive perceptual, interpersonal, disorganized, and social anxiety. Participants were presented with 32 items from the SPQ-BR.

Typical Intellectual Engagement Scale (TIE). The TIE (Goff & Ackerman, 1992) is a 59-item scale examining intelligence in terms of typical performance. This inventory represents 9 personality construct scales and 4 interest area scales: typical intellectual engagement, hard work, perfectionism, openness, absorption, distractibility, extroverted intellectual engagement, introverted intellectual engagement, energy, interest in arts and humanities, interest in sciences,

interest in social science, interest in technology. In this study, only 13 items (one per construct/interest scale) were collected. Participants were presented with 13 items from the TIE.

Validity scales. The Infrequency Scale and the Too Good to be True Scale (Lynam et al., 2011) are two 8-item scales from the Elemental Psychopathy Assessment. Participants will be presented with 16 items from the Infrequency Scale and the Too Good to be True Scale. Items from these validity scales are distributed across the Openness measures. Any participants who received a score of 4 or more on the Infrequency Scale or a score of 3 or more on the Too Good to Be True Scale were excluded from the final analysis.

Data Analysis

To examine the hierarchical structure of Openness, I conducted a bass-ackwards hierarchical factor analysis (Goldberg, 2006). First, I conducted processing analyses to reduce content overlap between items. This step included examining high correlations between items to identify items that can be removed from the scale. After completing data collection, all relevant items that were correlated above .65 were identified. 99 item pairs with correlations above .65 were identified. One item from each pair was removed from the item pool, resulting in 34 items being removed. Therefore, the final Openness scale was composed of 117 items. After revising the scale, I analyzed the structure of Openness. Following prior work on hierarchical factor structures (Crowe et al., 2017; Goldberg, 2006), I identified all factor solutions. Then, I extracted the factor solution at each level, then examined the relationship between each factor solution from the broadest level to the most specific to produce a map of factor emergence in Openness. In a final step, I correlated the facets at the bottom-level factor solution with external variables of interest.

Table 1

List of Scales Measuring Openness and Related Traits

Trait	Aspect (if applicable)	Facet	Inventory Name	# of Items	Example Item
Openness		Intellectual Curiosity	BFI-2	4	Is curious about many different things
Openness		Aesthetic Sensitivity	BFI-2	4	Is fascinated by art, music, or literature
Openness		Creative Imagination	BFI-2	4	Is inventive, finds clever ways to do things
Openness	Intellect		BFAS	10	Am quick to understand things
Openness	Openness		BFAS	10	Enjoy the beauty of nature
Openness		Intellectance	FI-FFM	10	I enjoy learning for learning's sake.
Openness		Novel Experience Seeking	FI-FFM	11	I like having new experiences.
Openness		Non-traditionalism	FI-FFM	12	I'm a bit unconventional.
Openness		Aesthetic Appreciation	HEXACO-PI-R	4	If I had the opportunity, I would like to attend a classical music concert
Openness		Inquisitiveness	HEXACO-PI-R	4	I'm interested in learning about the history and politics of other countries
Openness		Creativity	HEXACO-PI-R	4	I would enjoy creating a work of art, such as a novel, a song, or a painting
Openness		Unconventionality	HEXACO-PI-R	4	I like people who have unconventional views
Openness		Imagination	IPIP-NEO-PI-R	4	Have a vivid imagination
Openness		Artistic Interests	IPIP-NEO-PI-R	4	See beauty in things that others might not notice
Openness		Emotionality	IPIP-NEO-PI-R	4	Experience my emotions intensely

Openness		Adventurousness	IPIP-NEO-PI-R	4	Prefer to stick with things that I know (R)
Openness		Intellect	IPIP-NEO-PI-R	4	Am not interested in abstract ideas (R)
Openness		Liberalism	IPIP-NEO-PI-R	4	Tend to vote for liberal political candidates
Openness	Intellect	Intellectual Efficiency	Openness to Experience Inventory	9	I am very quick at processing information
Openness	Intellect	Ingenuity	Openness to Experience Inventory	9	I improvise if I don't have the right tool for a job
Openness	Intellect	Curiosity	Openness to Experience Inventory	9	I like to analyze things instead of taking them at face value
Openness	Culture	Aesthetics	Openness to Experience Inventory	9	I have a passion for art
Openness	Culture	Tolerance	Openness to Experience Inventory	9	I understand that people can have different attitudes toward certain things than I do
Openness	Culture	Depth	Openness to Experience Inventory	9	I take the time to reflect on my thoughts and actions
Cognitive Ability			ICAR	60	Isaac is shorter than George and Phillip is taller than George. Which of the following statements is most accurate?
Cognitive Ability			Sandria Matrices	10	Visual measure of cognitive ability.

Need for Closure	NFC Scale (Brief)	15	I find that a well-ordered life with regular hours suits my temperament
Need for Cognition	NCS (Brief)	18	I would prefer complex to simple problems
Perceptual Curiosity	Perceptual Curiosity Scale (Diversive/Specific)	12	Exploring my surroundings
Extraversion	IPIP	12	Make friends easily.
Agreeableness	IPIP	12	Believe that others have good intentions.
Conscientiousness	IPIP	12	Carry out my plans.
Neuroticism	IPIP	12	Do things I later regret.
Realistic	18REST	3	Operate machines for producing machine parts
Investigative	18REST	3	Read scientific papers and books
Artistic	18REST	3	Participate in designing of scenarios for theater pieces
Social	18REST	3	Provide social services in communities and neighborhoods
Enterprising	18REST	3	Take part in strategic planning for companies
Conventional	18REST	3	Supervise the compliance laws
Schizotypy	SPQ-BR	32	Do you sometimes feel that people are talking about you?
Typical Intellectual Engagement	TIE	13	I prefer my life to be filled with puzzles I must solve.

Divergent Thinking	Divergent Thinking Tasks	4	List as many alternative uses as you can think of for a wooden board
Creative Achievement	CAQ	10	
Left-Wing Authoritarianism	LWA	13	The rich should be stripped of their belongings and status
Right-Wing Authoritarianism	RWA	15	Our country needs a powerful leader, in order to destroy the radical and immoral currents prevailing in society today
Validity	Infrequency Scale	8	I frequently forget my middle name.
Validity	Too Good to Be True Scale	8	I have never told a lie to anyone.

CHAPTER 4

RESULTS

Table 2 presents descriptive indices and bivariate correlations among all measures included in survey. Following the Bass-Ackwards procedure for extracting factor scores (Crowe et al., 2017; Goldberg et al., 2006), I extracted a single-factor solution, followed by a series of more specific factor solutions. The first Openness factor explained 22.3% of the total variance. I used multiple approaches to identify the number of factors. Eigenvalues examined from a scree plot indicated the presence of eight to 10 factors. A parallel analysis suggested that there are 13 factors. See Figure 1 for a comparison between the results of the scree plot and the parallel analysis. Results from Velicer's minimum average partial (MAP) test identified 14 factors. In the 14-factor solution, there were zero items that had their highest loading on one of the 14 factors. According to Crowe et al. (2017), this suggests that 13 factors are the maximum number of unique factors considered for evaluation. After further evaluation of the solutions, the 10-factor model was selected as the final factor solution. Factors beyond this level contained overly specific content.

The content up through the 10-factor solution was evaluated. Although the content was generally consistent between the eight-factor and 10-factor solutions, there were certain key differences. Through the eight-factor to the nine-factor solution, Depth (8.4) broke into two factors (9.5 and 9.8). Depth (9.5) was highly similar to the preceding 8.4, however Unconventionality (9.8) contained content that was not highly consistent with any other factor. Unconventionality (9.8) further broke off into two factors (10.9 and 10.10). Whereas 10.10 was

similar in content to 9.8, Escapism (10.9) was the final new factor with distinct content from the other factors, including items such as “I experience my emotions intensely” and “I like to get lost in thought”.

Emergence of Openness Factors

Based on factor score correlations, a 10-factor hierarchical structure of Openness was observed (see Figure 2). Example items across 10 factors are shown in Table 3. To further clarify the content of each factor, correlations between the factor scores and the Openness scales were examined (see Table 4). Finally, Table 5 shows how similar the correlational profiles are for the Openness factor scores, such that the .74 at the top-left of the lower diagonal is the correlation between columns F1.1 and F2.1 from Table 4. Table 5 also presents the correlations between factor scores across the different factor solutions, such that the .92 at the top-left of the upper diagonal is the correlation between the factor scores for F1.1 and F2.1. The first factor showed strong correlations with all domain-level Openness scales, ranging from .69 (IPIP Openness) to .96 (Openness Inventory), with a median of .84. Correlations between the first factor and the Openness scales’ facets varied in strength, ranging from .25 (IPIP Emotionality) to .81 (FI-FFM Intellectance), with a median of .65. The first Openness factor (Openness; 1.1) correlated strongly with both factors of the two-factor solution. Specifically, the first Openness factor showed a correlation of r = .92 with the first factor of the two-factor solution (Culture, 2.1), and a correlation of r = .81 with the second factor of the two-factor solution (Intellect, 2.2).

In the two-factor solution, Culture (2.1) included a variety of heterogeneous items that described an appreciation for art and beauty, interest in others’ opinions and cultures, and tendency towards liberal values. Domain-level correlations ranged from .71 (BFAS Openness) to .87 (FI-FFM Openness), with a median of .80. Facet-level correlations ranged from .21

(Openness Inventory Intellectual Efficiency) to .81 (BFAS Openness, FI-FFM Openness), with a median of .65. Culture (2.1) showed the highest correlations with scales that examined Aesthetics (BFI-2, Openness Inventory), Depth (Openness Inventory), Intellectance (FI-FFM), and Openness (BFAS). The profile of this factor showed heterogeneous consistency from the two-factor through the 10-factor solutions, with profile similarities ranging between .78 and .91 across the factor solutions (see Table 5). The next factor, Intellect (2.2), included items examining a tendency towards processing new information. Domain-level correlations ranged from .32 (IPIP Openness) to .85(Openness Inventory), with a median of .80. Facet-level correlations ranged from -.04 (IPIP Liberalism) to .90 (BFAS Intellect), with a median of .45. Intellect (2.2.) showed the highest correlations with scales that examined Creative Imagination (BFI-2), Intellect (BFAS, Openness Inventory), Ingenuity (Openness Inventory), and Curiosity (Openness Inventory). The profile of this factor showed strong consistency from the two-factor through the 10-factor solutions, with profile similarity values greater than .93 across factor solutions.

In the three-factor solution, the content of Openness (2.1) and Intellect (2.2) carried over to the first (Culture, 3.1) and second factors (Intellect, 3.2). Culture (3.1) showed a profile similarity of .91 with its predecessor at the two-factor level. Similarly, Intellect (3.2) yielded a profile similarity of .99 with its predecessor at the two-factor level. Both factors showed consistency in domain-level and facet-level correlations with the associated preceding factors. Nonconformity (3.3) emerged as the third factor, containing items related to traditional lifestyles and political tolerance. This factor showed domain-level correlations ranging from .45 (BFI-2 Openness, BFAS Openness) to .85 (FI-FFM Openness), with a median of .74. Facet-level correlations ranged from .23 (BFI-2 Creative Imagination) to .82 (FI-FFM Non-Traditionalism),

with a median of .45. Liberalism (3.3) showed the highest correlations with Adventurousness (IPIP), Liberalism (IPIP), Non-Traditionalism (FI-FFM), Tolerance (Openness Inventory), and Unconventionality (HEXACO).

In the four-factor solution, the content of Culture (4.1), Intellect (4.2), and Nonconformity (4.4) showed profile similarities of .93, .99, and .99 with their predecessors of 3.1 (Culture), 3.2 (Intellect), and 3.3 (Nonconformity) respectively. Creativity (4.3) emerged from 3.1 (Culture), emphasizing item content related to creativity and imagination. This factor showed domain-level correlations ranging from .62 (HEXACO Openness) to .81 (BFI-2 Openness), with a median of .70. Facet-level correlations ranged from .18 (IPIP Liberalism) to .85 (Openness Inventory Ingenuity), with a median of .57. The factor's highest facet-level correlations were with Creative Imagination (BFI-2), Openness (BFAS), Imagination (IPIP), Novel Experience-Seeking (FI-FFM), and Ingenuity (Openness Inventory).

In the five-factor solution, the first (Intellect, 5.1), third (Creativity, 5.3), and fifth (Nonconformity, 5.5) factors are consistent with those at the preceding factor level based on profile similarities of .99, .98, and .97 respectively. Culture (4.1) split into Aesthetics (5.2) and Experiences (5.4). Aesthetics (5.2) showed a consistent profile similarity value of .90 with 4.1 (Culture), however the item content shifted to emphasizing solely the appreciation of art and beauty. This factor showed domain-level correlations ranging from .59 (FI-FFM Openness) to .73 (HEXACO Openness), with a median of .70. Facet-level correlations ranged from .18 (Openness Inventory Intellectual Efficiency) to .91 (Openness Inventory Aesthetics), with a median of .49. The factor's highest facet-level correlations were with Aesthetic Sensitivity/Aesthetics (BFI-2, Openness Inventory), Openness (BFAS), Intellectance (FI-FFM), and Depth (Openness Inventory). Experiences (5.4) focused on items that examined interest in

the ideas of other people. This factor showed domain-level correlations ranging from .47 (IPIP Openness) to .84 (Openness Inventory), with a median of .70. At the facet-level, correlations ranged from .11 (IPIP Emotionality) to .81 (Openness Inventory Curiosity), with a median of .53. Experiences (5.4) showed the highest facet-level correlations with Intellectance (FI-FFM), Novel Experience-Seeking (FI-FFM), Curiosity (Openness Inventory), Tolerance (Openness Inventory), and Depth (Openness Inventory).

In the six-factor solution, the first (Intellect, 6.1), second (Creativity, 6.2), third (Experiences, 6.3), fourth (Aesthetics, 6.4), and fifth (Nonconformity, 6.5) factors are consistent with those at the preceding factor level based on profile similarities of 1.00, .97, .99, .99, and 1.00 respectively. Anti-Intellect (6.6) emerged from 5.2 (Aesthetics), containing items that captured a resistance to change and intellectual discussion. This factor showed domain-level correlations ranging from .07 (FI-FFM Openness) to .33 (Openness Inventory), with a median of .31. Facet-level correlations ranged from -.19 (IPIP Adventurousness) to .47 (Openness Inventory, Depth), with a median of .31. This factor showed the highest facet-level correlations with Intellectual Curiosity (BFI-2), Openness (BFAS), Intellect (IPIP), Curiosity (Openness Inventory), and Depth (Openness Inventory). Anti-Intellect (6.6) appeared to be the least connected facet to any other factor solution, as evidenced by the low consistency from the six-factor through the 10-factor solutions based on profile similarity values ranging from .50 to .59.

In the seven-factor solution, the first (Aesthetics, 7.1), second (Intellect, 7.2), third (Creativity, 7.3), and fifth (Nonconformity, 7.5) factors are consistent with those at the preceding factor level based on profile similarities of .99, .99, .96 and .99 respectively. Experiences (6.3) split into Depth (7.4) and Curiosity (7.6). The item content captured by Depth (7.4) focused on interest in complex topics, such as philosophy and science. The factor showed domain-level

correlations with a range from .40 (IPIP Openness) to .79 (Openness Inventory), with a median of .66. Facet-level correlations ranged from -.03 (IPIP Emotionality) to .76 (Openness Inventory Curiosity). This factor showed the highest facet-level correlations with Intellectual Curiosity (BFI-2), Intellectance (FI-FFM), Inquisitiveness (HEXACO), Curiosity (Openness Inventory), Depth (Openness Inventory). For Curiosity (7.6), item content focused on interest in new stimuli. Domain-level correlations ranged from .37 (BFI-2 Openness) to .73 (FI-FFM Openness), with a median of .46. Facet-level correlations ranged from .04 (IPIP Emotionality) to .85 (FI-FFM Novel Experience-Seeking), with a median of .36. The highest facet-level correlations included Novel-Experience Seeking (FI-FFM), Adventurousness (IPIP), Ingenuity (Openness Inventory), Curiosity (Openness Inventory), and Tolerance (Openness Inventory). Liberalism (7.7) emerged from 6.6 (Anti-Intellect), with the item content capturing empathy towards the beliefs and attitudes towards other people. The factor showed domain-level correlations with a range from .44 (BFI-2 Openness) to .64 (Openness Inventory), with a median of .48. Facet-level correlations ranged from .17 (IPIP Adventurousness) to .67 (Openness Inventory Tolerance). The highest facet-level correlations included Openness (BFAS), Intellectance (FI-FFM), Curiosity (Openness Inventory), Tolerance (Openness Inventory), and Depth (Openness Inventory).

In the eight-factor solution, the first (Aesthetics, 8.1), the second (Intellectual Efficiency, 8.2), the third (Creativity, 8.3), fourth (Depth, 8.4), fifth (Nonconformity, 8.5), sixth (Liberalism, 8.6), and seventh (Curiosity, 8.7) factors are consistent with those at the preceding factor level based on profile similarities of .99, .99, .95, .86, 1.00, .99, and 1.00 respectively. Intellectual Effort (8.8) emerged from 7.2 (Intellect), containing items that capture interest in cognitive complexity. The factor showed domain-level correlations with a range from .03 (IPIP Openness) to .51 (Openness Inventory), with a median of .37. Facet-level correlations ranged from -.42

(IPIP Emotionality) to .69 (HEXACO Inquisitiveness), with a median of .24. The highest facet-level correlations for this factor included Intellect/Intellectual Efficiency (BFAS, Openness Inventory), Inquisitiveness (HEXACO), Intellect (IPIP), and Curiosity (Openness Inventory).

In the nine-factor solution, the first (Aesthetics, 9.1), the second (Intellectual Efficiency, 9.2), the third (Creativity, 9.3), the fourth (Nonconformity, 9.4), fifth (Depth, 9.5), sixth (Liberalism, 9.8), seventh (Curiosity, 9.7), and ninth (Intellectual Effort, 9.9) factors are consistent with those at the preceding factor level based on profile similarities of .98, 1.00, .96, .97, .87, .96, .99, and .99 respectively. Unconventionality (9.8) emerged from 8.4 (Depth), including items about challenging convention. The factor showed domain-level correlations with a range from .13 (IPIP Openness) to .60 (HEXACO Openness), with a median of .44. Facet-level correlations ranged from -.34 (IPIP Emotionality) to .75 (HEXACO Inquisitiveness), with a median of .31. The highest facet-level correlations for this factor included Intellect (BFAS, IPIP), Inquisitiveness (HEXACO), Intellectual Efficiency (Openness Inventory), and Curiosity (Openness Inventory).

In the ten-factor solution, the first (10.1, Aesthetics), the second (Intellectual Efficiency, 10.2), the third (Creativity, 10.3), the fourth (Depth, 10.4), the fifth (Nonconformity, 10.5), sixth (Liberalism, 10.6), seventh (Intellectual Effort, 10.7), and eighth (Curiosity, 10.8) factors are consistent with those at the preceding factor level based on profile similarities of .97, 1.00, .98, .95, .98, .84, .88, and .92 respectively. 9.8 (Unconventionality) split into Escapism (10.9) and Unconventionality (10.10). Escapism (10.9) includes items related to fantasy and imagination. The factor showed domain-level correlations with a range from .28 (HEXACO Openness) to .68 (IPIP Openness), with a median of .39. Facet-level correlations ranged from -.11 (Openness Inventory Intellectual Efficiency) to .81 (IPIP Emotionality). The highest facet-level correlations

for this factor included Openness (BFAS), Imagination (IPIP), Emotionality (IPIP), Aesthetics (Openness Inventory), and Depth (Openness Inventory). Unconventionality (10.10) emphasizes items about deviating from norms and acting in an unconventional manner. The factor showed domain-level correlations with a range from .09 (BFI-2 Openness) to .42 (FI-FFM Openness), with a median of .20. Facet-level correlations ranged from -.08 (Openness Inventory Intellectual Efficiency) to .47 (FI-FFM Novel Experience-Seeking). The highest facet-level correlations for this factor included Intellectance (FI-FFM) Novel Experience-Seeking (FI-FFM), Non-Traditionalism (FI-FFM), Unconventionality (HEXACO), and Imagination (IPIP). At the 10-factor solution, all identified factors show evidence for convergent validity with the overall Openness domain. The 10 identified facets yielded correlations between .28 and .86 with the first Openness factor (see Table 5). Within the 10-factor solution, correlations ranged from .01 (Curiosity and Escapism) to .61 (Depth and Intellectual Effort), with a median of .33. In terms of the uniqueness across factors at the 10-factor solution, Depth (10.4) and Intellectual Effort (10.7) showed a higher profile similarity value of .80. However, the remaining correlational profiles indicate that the 10 identified factors are generally unique. Table 6 summarizes the results of the analyses identifying the factor structure of Openness.

Construct Validity of Openness Factors

To evaluate the factor divergence of Openness, each factor score was correlated with a set of external measures (see Table 7). Table 8 shows the correlations between the 10 facets and the external measures. Self-report external measures were evaluated based on correlations that were significant at $p < .01$. For the intelligence measures, ICAR and the Sandia Matrices, correlations significant at $p < .05$ were also reported.

Openness (1.1) showed a strong correlation with Need for Cognition (r = .76). At the 10-factor model, correlations across factors with Need for Cognition ranged in effects from .12 (Unconventionality, 10.10) to .80 (Depth, 10.4). Openness (1.1) also strongly correlated with Typical Intellectual Engagement (TIE) (r = .75). Effects at the 10-factor model ranged from .14 (Escapism, 10.9) to .77 (Depth, 10.4). For Perceptual Curiosity, Openness (1.1) showed a strong correlation (r = .56), which ranged within the 10-factor model from .16 (Nonconformity, 10.5) to .49 (Curiosity, 10.8).

Need for Closure was moderately negatively related (r = -.40) to the first Openness factor (1.1), as well as multiple facets of the 10-factor model. In the 10-factor solution, Need for Closure ranged from null relations of .04 (Unconventionality, 10.10) to stronger relationships of -.55 (Curiosity, 10.8). Schizotypal Personality showed a null association (r = -.01) with Openness (1.1). 10-factor correlations with Schizotypal Personality ranged from null effects of .01 (Liberalism, 10.6) to moderate negative effects of -.38 (Intellectual Efficiency, 10.2) and moderate positive effects of .39 (Unconventional, 10.10). The relationships between Openness and Left-Wing Authoritarianism (LWA) and Right-Wing Authoritarian (RWA) were also examined. Openness (1.1) was not significantly correlated with LWA or RWA. 10-factor correlations with LWA ranged from null effects of 0 (Creativity, 10.3; Depth, 10.4) to a moderate positive effect of .44 (Nonconformity, 10.5). 10-factor correlations with RWA ranged from a null effect of 0 (Creativity, 10.3) to a moderate negative effect of -.38 (Nonconformity, 10.5). The Creative Achievement Questionnaire (CAQ) showed a moderate correlation (r = .40) with Openness (1.1). There was a moderate correlation between Openness (1.1) and the CAQ category of Arts (r = .37), with effects at the 10-factor model ranging from .10 (Liberalism, 10.6) to .36 (Creativity, 10.3). There was a weak correlation between Openness (1.1) and the CAQ

category of Science (*r* = .20), with effects at the 10-factor model ranging from a null effect of -.04 (Escapism, 10.9) to a small effect of .24 (Intellectual Effort, 10.7).

The association between Openness facets and interests based on the RIASEC. Openness (1.1) yielded a weak correlation (*r* = .16) with Realistic interests. At the 10-factor model, correlations with Realistic interests ranged from a null effect of .03 (Liberalism, 10.6) to a weak negative effect of -.28 (Escapism, 10.9). Investigative interests showed a moderate correlation (*r* = .44) with Openness (1.1). The 10-factor model's relationship with Investigative interests ranged from a null effect of .03 (Nonconformity, 10.5) to moderate effects of .45 (Depth, 10.4) and .52 (Intellectual Effort, 10.7). Similarly, Artistic interests were moderately correlated (*r* = .47) with Openness (1.1). At the 10-factor model, Artistic interests ranged from a weak effect of .09 (Intellectual Efficiency, 10.2) to a stronger effect of .51 (Aesthetics, 10.1). Social interests showed a moderate correlation (*r* = .40) with Openness (1.1). At the 10-factor model, Social interests ranged from a weak effect of .08 (Nonconformity, 10.5) to a moderate effect of .42 (Liberalism, 10.6). Enterprising interests were weakly correlated (*r* = .26) with Openness (1.1). At the 10-factor model, Enterprising interests ranged from a weak effect of .11 (Aesthetics, 10.1) to a moderate effect of .38 (Intellectual Efficiency, 10.2). Finally, Conventional interests were weakly correlated (*r* = .24) with Openness (1.1). At the 10-factor model, Conventional interests ranged from a weak effect of .11 (Aesthetics, 10.1) to a moderate effect of .32 (Intellectual Efficiency, 10.2).

There were divergent effects across the 10-factor model for the other four BFI domains. Openness (1.1) demonstrated a moderate correlation with Extraversion (*r* = .39), with effects at the 10-factor model ranging from a null effect of -.04 (Escapism, 10.9) to a strong effect at .52 (Curiosity, 10.8). The correlation between Openness (1.1) and Agreeableness was smaller (*r* =

.11), with effects at the 10-factor model ranging from a null model at .01 (Creativity, 10.3) to a moderate effect of .38 (Liberalism, 10.6). The correlation between Openness (1.1) and Conscientious was smaller (*r* = .11), with effects at the 10-factor model ranging from -.01 (Unconventional, 10.10) to a moderate positive effect of .32 (Intellectual Efficiency, 10.2) and moderate negative effect of -.32 (Nonconformity, 10.5). Lastly, there was a negative small correlation between Openness (1.1) and Neuroticism (*r* = -.14), with effects at the 10-factor model ranging from -.01 (Aesthetics, 10.1) to a moderate negative effect of -.47 (Intellectual Efficiency, 10.2) and moderate positive effect of .42 (Escapism, 10.9).

The last set of measures assessed how Openness was associated with cognitive ability and divergent thinking. There were two cognitive ability measures: the ICAR and the Sandia Matrices. Openness (1.1) demonstrated a null correlation with the ICAR (*r* = .07). At the 10-factor model, effects ranged from 0 (Creativity, 10.3) to a weak effect of .23 (Intellectual Effort, 10.7). Openness (1.1) showed a weak correlation with the Sandia Matrices (*r* = .13), with effects at the 10-factor model ranging from a null effect of 0 (Curiosity, 10.8) to a weak effect of .28 (Intellectual Effort, 10.7). The smaller effect sizes of both cognitive ability measures may be explained by measurement differences from the other external variables that relied on self-report, and therefore the cognitive ability results are consistent with effect sizes from prior research (DeYoung, 2019). Finally, Openness (1.1) showed a small correlation with Divergent Thinking (*r* = .20). For alternative uses, Openness (1.1) was weakly correlated (*r* = .23), with effects at the 10-factor model ranging from a null effect of 0 (Unconventional, 10.10) to a small effect of .21 (Creativity, 10.3). For the consequences task, Openness (1.1) was weakly correlated (*r* = .14), with effects at the 10-factor model ranging a null effect of 0 (Intellectual Efficiency, 10.2) to a small effect of .16 (Nonconformity, 10.5).

Table 2

Descriptive Statistics and Correlations for Measures

Scale	**Facets**	**Items**	***n***	***α***	***M (SD)***	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
BFI-2-O		7	669	.80	3.81 (0.72)	1	0.75	0.79	0.85	0.74	0.55	0.67	0.6	0.64	0.48	0.37	0.63	0.52	0.39	0.54	0.44
	Intellectual Curiosity	2	669	.72	3.79 (0.87)	0.75	1	0.44	0.45	0.64	0.54	0.49	0.53	0.56	0.4	0.35	0.55	0.41	0.39	0.34	0.44
	Aesthetic Sensitivity	2	669	.51	3.69 (0.99)	0.79	0.44	1	0.49	0.55	0.31	0.61	0.51	0.61	0.33	0.34	0.57	0.54	0.32	0.5	0.36
	Creative Imagination	3	669	.79	3.91 (0.85)	0.85	0.45	0.49	1	0.61	0.48	0.52	0.43	0.41	0.42	0.24	0.43	0.33	0.26	0.45	0.29
BFAS-O		17	669	.85	3.85 (0.52)	0.74	0.64	0.55	0.61	1	0.85	0.76	0.59	0.67	0.51	0.3	0.66	0.52	0.48	0.48	0.44
	Intellect	9	669	.86	3.71 (0.67)	0.55	0.54	0.31	0.48	0.85	1	0.32	0.41	0.46	0.38	0.16	0.48	0.32	0.44	0.22	0.3
	Openness	8	669	.79	4.00 (0.61)	0.67	0.49	0.61	0.52	0.76	0.32	1	0.58	0.65	0.45	0.34	0.61	0.55	0.33	0.6	0.43
FIFFM-O		20	669	.86	3.69 (0.53)	0.6	0.53	0.51	0.43	0.59	0.41	0.58	1	0.74	0.83	0.79	0.7	0.5	0.45	0.44	0.65
	Intellectance	5	669	.75	3.90 (0.73)	0.64	0.56	0.61	0.41	0.67	0.46	0.65	0.74	1	0.5	0.37	0.75	0.62	0.55	0.53	0.46
	Novel Experience Seeking	8	669	.80	3.98 (0.59)	0.48	0.4	0.33	0.42	0.51	0.38	0.45	0.83	0.5	1	0.45	0.52	0.38	0.36	0.3	0.43
	Non-traditionalism	7	669	.75	3.16 (0.74)	0.37	0.35	0.34	0.24	0.3	0.16	0.34	0.79	0.37	0.45	1	0.46	0.25	0.2	0.28	0.66
HEXACO-O		11	669	.78	3.76 (0.64)	0.63	0.55	0.57	0.43	0.66	0.48	0.61	0.7	0.75	0.52	0.46	1	0.78	0.78	0.58	0.66
	Aesthetic Appreciation	3	669	.56	3.68 (0.90)	0.52	0.41	0.54	0.33	0.52	0.32	0.55	0.5	0.62	0.38	0.25	0.78	1	0.42	0.46	0.34
	Inquisitiveness	4	669	.73	3.84 (0.87)	0.39	0.39	0.32	0.26	0.48	0.44	0.33	0.45	0.55	0.36	0.2	0.78	0.42	1	0.24	0.27
	Creativity	1	669	1	3.97 (1.13)	0.54	0.34	0.5	0.45	0.48	0.22	0.6	0.44	0.53	0.3	0.28	0.58	0.46	0.24	1	0.37
	Unconventionality	3	669	.66	3.67 (0.79)	0.44	0.44	0.36	0.29	0.44	0.3	0.43	0.65	0.46	0.43	0.66	0.66	0.34	0.27	0.37	1
IPIP-O		13	669	.79	3.55 (0.64)	0.54	0.43	0.48	0.39	0.49	0.25	0.59	0.73	0.5	0.52	0.69	0.54	0.38	0.24	0.46	0.61
	Imagination	3	669	.79	3.86 (0.91)	0.59	0.41	0.41	0.56	0.51	0.26	0.62	0.52	0.47	0.42	0.37	0.49	0.39	0.22	0.52	0.43
	Emotionality	3	669	.8	3.62 (0.98)	0.22	0.14	0.28	0.13	0.22	-0.02	0.42	0.23	0.21	0.16	0.17	0.16	0.19	-0.03	0.19	0.23
	Adventurousness	3	669	.74	3.05 (0.91)	0.39	0.35	0.32	0.28	0.4	0.35	0.29	0.67	0.39	0.54	0.6	0.46	0.28	0.32	0.28	0.44
	Intellect	1	669	1	4.04 (1.02)	0.62	0.58	0.48	0.46	0.59	0.45	0.52	0.57	0.53	0.44	0.39	0.58	0.39	0.42	0.42	0.46
	Liberalism	3	669	.69	3.51 (1.12)	0.14	0.15	0.2	0.02	0.1	0	0.19	0.45	0.19	0.21	0.64	0.25	0.11	0.04	0.18	0.45

Scale	**Facets**	**Items**	***n***	***α***	***M (SD)***	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Openness Inventory		48	669	.93	3.85 (0.51)	0.75	0.65	0.59	0.59	0.81	0.69	0.63	0.74	0.73	0.63	0.43	0.76	0.58	0.56	0.5	0.53
	Intellectual Efficiency	8	669	.89	3.46 (0.83)	0.39	0.37	0.23	0.35	0.61	0.78	0.15	0.29	0.3	0.28	0.13	0.34	0.22	0.36	0.11	0.18
	Ingenuity	8	669	.88	3.59 (0.80)	0.73	0.54	0.43	0.75	0.68	0.59	0.5	0.55	0.49	0.52	0.32	0.55	0.37	0.38	0.48	0.4
	Curiosity	9	669	.79	4.13 (0.57)	0.57	0.55	0.42	0.43	0.63	0.55	0.47	0.63	0.58	0.58	0.36	0.66	0.43	0.58	0.35	0.44
	Aesthetics	6	669	.84	3.86 (0.58)	0.63	0.43	0.68	0.42	0.62	0.35	0.7	0.58	0.76	0.4	0.3	0.7	0.7	0.42	0.6	0.39
	Tolerance	9	669	.77	4.09 (0.58)	0.36	0.33	0.36	0.21	0.38	0.26	0.37	0.62	0.48	0.53	0.45	0.5	0.35	0.33	0.27	0.46
	Depth	8	669	.79	3.89 (0.65)	0.61	0.62	0.51	0.39	0.6	0.38	0.62	0.6	0.65	0.47	0.37	0.64	0.55	0.39	0.42	0.5
Need for Closure		15	669	0.89	3.41 (0.72)	-0.27	-0.26	-0.2	-0.2	-0.28	-0.3	-0.13	-0.43	-0.27	-0.33	-0.39	-0.36	-0.25	-0.28	-0.18	-0.27
Need for Cognition		18	669	0.92	3.36 (0.78)	0.62	0.68	0.42	0.44	0.69	0.67	0.42	0.57	0.56	0.48	0.35	0.6	0.4	0.51	0.33	0.42
SPQ		32	669	0.94	2.58 (0.73)	0	0.06	-0.03	-0.02	-0.1	-0.25	0.14	0.14	0.04	0.07	0.24	0.03	0.08	-0.2	0.1	0.25
Perceptual Curiosity		12	669	0.9	2.49 (0.60)	0.4	0.33	0.29	0.35	0.48	0.36	0.43	0.51	0.43	0.47	0.3	0.46	0.34	0.34	0.27	0.36
TIE		13	669	0.81	2.98 (0.65)	0.56	0.62	0.39	0.38	0.64	0.58	0.44	0.61	0.6	0.51	0.37	0.67	0.47	0.54	0.35	0.49
LWA		13	669	0.87	3.37 (0.64)	0.03	-0.01	0.09	-0.01	0.01	-0.1	0.14	0.25	0.11	0.11	0.35	0.06	0.03	-0.11	0.07	0.25
RWA		15	669	0.36	2.68 (0.84)	-0.05	-0.06	-0.07	0.01	0.03	0.02	0.03	-0.12	0.02	0.05	-0.32	-0.02	0.03	-0.04	0.04	-0.06
BFI-2	*Extraversion*	12	669	0.91	3.06 (0.40)	0.31	0.19	0.15	0.36	0.39	0.4	0.2	0.3	0.22	0.44	0.01	0.22	0.13	0.23	0.17	0.07
	Agreeableness	12	669	0.69	3.14 (0.89)	0.08	0.01	0.15	0.03	0.11	0.02	0.18	0.01	0.14	0.05	-0.12	0.06	0.16	0.02	0.05	-0.05
	Conscientiousness	12	669	0.88	3.82 (0.51)	0.07	0.02	-0.01	0.14	0.21	0.26	0.07	-0.07	0.08	0.1	-0.33	0.02	0.06	0.14	-0.02	-0.18
	Neuroticism	12	669	0.94	4.08 (0.57)	-0.12	-0.05	-0.04	-0.17	-0.22	-0.38	0.07	0.03	-0.04	-0.09	0.19	-0.07	0	-0.24	0.04	0.13
X18	*Realistic*	3	669	0.75	2.74 (1.06)	0.08	0.14	-0.04	0.09	0.11	0.18	-0.03	0.08	0.12	0.12	-0.03	0.22	0.14	0.31	0.03	0.03
	Investigative	3	669	0.86	2.38 (0.97)	0.29	0.38	0.13	0.21	0.37	0.4	0.18	0.33	0.36	0.3	0.15	0.46	0.3	0.49	0.18	0.21
	Artistic	3	669	0.76	3.20 (1.08)	0.42	0.28	0.41	0.31	0.37	0.19	0.44	0.39	0.47	0.25	0.23	0.46	0.46	0.24	0.48	0.26
	Social	3	669	0.79	2.73 (1.08)	0.32	0.25	0.27	0.25	0.35	0.23	0.35	0.32	0.34	0.31	0.12	0.28	0.26	0.19	0.18	0.18
	Enterprising	3	669	0.79	3.71 (0.88)	0.17	0.19	0.02	0.2	0.27	0.35	0.06	0.13	0.14	0.23	-0.08	0.17	0.09	0.25	0.06	0
	Conventional	3	669	0.75	2.95 (1.04)	0.14	0.23	0.01	0.11	0.23	0.31	0.04	0.1	0.18	0.17	-0.07	0.23	0.12	0.33	0.03	0.05
ICAR		10	669	0.7	2.91 (0.98)	0.01	0.08	0.03	-0.06	0.05	0.1	-0.04	0.07	0.06	-0.02	0.11	0.1	0	0.15	0.01	0.07
Sandia Matrices		10	669	0.72	6.28 (2.20)	0.11	0.15	0.11	0.03	0.1	0.11	0.05	0.1	0.1	0.02	0.11	0.13	0.05	0.12	0.11	0.1

Scale	**Facets**	**Items**	***n***	***α***	***M (SD)***	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Divergent Thinking	*Alternative Uses*	2	669		12.60 (6.24)	0.2	0.2	0.15	0.14	0.21	0.14	0.2	0.2	0.2	0.07	0.21	0.25	0.18	0.16	0.18	0.22
	Consequences	2	669		10.07 (5.28)	0.13	0.15	0.07	0.1	0.11	0.06	0.12	0.13	0.14	0.03	0.14	0.16	0.1	0.08	0.11	0.19
	Total	4	669		22.67 (10.43)	0.18	0.19	0.12	0.13	0.18	0.12	0.18	0.18	0.19	0.06	0.2	0.23	0.16	0.13	0.16	0.23
CAQ	*Arts*	6	669		7.13 (.89)	0.35	0.26	0.31	0.27	0.3	0.16	0.36	0.37	0.35	0.23	0.34	0.34	0.25	0.16	0.35	0.31
	Science	2	669		1.48 (3.41)	0.16	0.18	0.07	0.14	0.19	0.22	0.08	0.13	0.1	0.1	0.12	0.16	0.06	0.15	0.06	0.17
	Total	10	669		8.61 (11.06)	0.36	0.28	0.3	0.29	0.33	0.21	0.34	0.37	0.34	0.23	0.34	0.35	0.25	0.19	0.33	0.33

Table 2
Descriptive Statistics and Correlations for Measures (Continued)

Scale	**Facets**	**Items**	***n***	***α***	***M (SD)***	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
BFI-2-O		7	669	.80	3.81 (0.72)	0.54	0.59	0.22	0.39	0.62	0.14	0.75	0.39	0.73	0.57	0.63	0.36	0.61	-0.27	0.62	0
	Intellectual Curiosity	2	669	.72	3.79 (0.87)	0.43	0.41	0.14	0.35	0.58	0.15	0.65	0.37	0.54	0.55	0.43	0.33	0.62	-0.26	0.68	0.06
	Aesthetic Sensitivity	2	669	.51	3.69 (0.99)	0.48	0.41	0.28	0.32	0.48	0.2	0.59	0.23	0.43	0.42	0.68	0.36	0.51	-0.2	0.42	-0.03
	Creative Imagination	3	669	.79	3.91 (0.85)	0.39	0.56	0.13	0.28	0.46	0.02	0.59	0.35	0.75	0.43	0.42	0.21	0.39	-0.2	0.44	-0.02
BFAS-O		17	669	.85	3.85 (0.52)	0.49	0.51	0.22	0.4	0.59	0.1	0.81	0.61	0.68	0.63	0.62	0.38	0.6	-0.28	0.69	-0.1
	Intellect	9	669	.86	3.71 (0.67)	0.25	0.26	-0.02	0.35	0.45	0	0.69	0.78	0.59	0.55	0.35	0.26	0.38	-0.3	0.67	-0.25
	Openness	8	669	.79	4.00 (0.61)	0.59	0.62	0.42	0.29	0.52	0.19	0.63	0.15	0.5	0.47	0.7	0.37	0.62	-0.13	0.42	0.14
FIFFM-O		20	669	.86	3.69 (0.53)	0.73	0.52	0.23	0.67	0.57	0.45	0.74	0.29	0.55	0.63	0.58	0.62	0.6	-0.43	0.57	0.14
	Intellectance	5	669	.75	3.90 (0.73)	0.5	0.47	0.21	0.39	0.53	0.19	0.73	0.3	0.49	0.58	0.76	0.48	0.65	-0.27	0.56	0.04
	Novel Experience Seeking	8	669	.80	3.98 (0.59)	0.52	0.42	0.16	0.54	0.44	0.21	0.63	0.28	0.52	0.58	0.4	0.53	0.47	-0.33	0.48	0.07
	Non-traditionalism	7	669	.75	3.16 (0.74)	0.69	0.37	0.17	0.6	0.39	0.64	0.43	0.13	0.32	0.36	0.3	0.45	0.37	-0.39	0.35	0.24
HEXACO-O		11	669	.78	3.76 (0.64)	0.54	0.49	0.16	0.46	0.58	0.25	0.76	0.34	0.55	0.66	0.7	0.5	0.64	-0.36	0.6	0.03
	Aesthetic Appreciation	3	669	.56	3.68 (0.90)	0.38	0.39	0.19	0.28	0.39	0.11	0.58	0.22	0.37	0.43	0.7	0.35	0.55	-0.25	0.4	0.08
	Inquisitiveness	4	669	.73	3.84 (0.87)	0.24	0.22	-0.03	0.32	0.42	0.04	0.56	0.36	0.38	0.58	0.42	0.33	0.39	-0.28	0.51	-0.2
	Creativity	1	669	1	3.97 (1.13)	0.46	0.52	0.19	0.28	0.42	0.18	0.5	0.11	0.48	0.35	0.6	0.27	0.42	-0.18	0.33	0.1
	Unconventionality	3	669	.66	3.67 (0.79)	0.61	0.43	0.23	0.44	0.46	0.45	0.53	0.18	0.4	0.44	0.39	0.46	0.5	-0.27	0.42	0.25
IPIP-O		13	669	.79	3.55 (0.64)	1	0.68	0.58	0.67	0.59	0.68	0.57	0.15	0.43	0.48	0.49	0.51	0.53	-0.31	0.4	0.22
	Imagination	3	669	.79	3.86 (0.91)	0.68	1	0.31	0.29	0.42	0.21	0.53	0.13	0.51	0.42	0.47	0.32	0.51	-0.12	0.38	0.27
	Emotionality	3	669	.8	3.62 (0.98)	0.58	0.31	1	0.1	0.18	0.16	0.19	-0.09	0.12	0.13	0.29	0.19	0.25	0.11	0.05	0.23
	Adventurousness	3	669	.74	3.05 (0.91)	0.67	0.29	0.1	1	0.51	0.36	0.53	0.32	0.41	0.47	0.32	0.43	0.37	-0.59	0.47	-0.09
	Intellect	1	669	1	4.04 (1.02)	0.59	0.42	0.18	0.51	1	0.24	0.67	0.33	0.52	0.58	0.49	0.42	0.6	-0.36	0.59	-0.01
	Liberalism	3	669	.69	3.51 (1.12)	0.68	0.21	0.16	0.36	0.24	1	0.18	-0.02	0.04	0.16	0.15	0.35	0.19	-0.17	0.07	0.19
Openness Inventory		48	669	.93	3.85 (0.51)	0.57	0.53	0.19	0.53	0.67	0.18	1	0.64	0.8	0.82	0.71	0.65	0.77	-0.39	0.76	-0.1

Scale	**Facets**	**Items**	***n***	***α***	***M (SD)***	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
	Intellectual Efficiency	8	669	.89	3.46 (0.83)	0.15	0.13	-0.09	0.32	0.33	-0.02	0.64	1	0.51	0.47	0.24	0.19	0.23	-0.31	0.55	-0.37
	Ingenuity	8	669	.88	3.59 (0.80)	0.43	0.51	0.12	0.41	0.52	0.04	0.8	0.51	1	0.6	0.46	0.32	0.5	-0.32	0.65	-0.05
	Curiosity	9	669	.79	4.13 (0.57)	0.48	0.42	0.13	0.47	0.58	0.16	0.82	0.47	0.6	1	0.48	0.48	0.58	-0.32	0.67	-0.07
	Aesthetics	6	669	.84	3.86 (0.58)	0.49	0.47	0.29	0.32	0.49	0.15	0.71	0.24	0.46	0.48	1	0.4	0.6	-0.19	0.44	0.04
	Tolerance	9	669	.77	4.09 (0.58)	0.51	0.32	0.19	0.43	0.42	0.35	0.65	0.19	0.32	0.48	0.4	1	0.54	-0.28	0.42	0.01
	Depth	8	669	.79	3.89 (0.65)	0.53	0.51	0.25	0.37	0.6	0.19	0.77	0.23	0.5	0.58	0.6	0.54	1	-0.26	0.59	0.07
Need for Closure		15	669	0.89	3.41 (0.72)	-0.31	-0.12	0.11	-0.59	-0.36	-0.17	-0.39	-0.31	-0.32	-0.32	-0.19	-0.28	-0.26	1	-0.43	0.22
Need for Cognition		18	669	0.92	3.36 (0.78)	0.4	0.38	0.05	0.47	0.59	0.07	0.76	0.55	0.65	0.67	0.44	0.42	0.59	-0.43	1	-0.09
SPQ		32	669	0.94	2.58 (0.73)	0.22	0.27	0.23	-0.09	-0.01	0.19	-0.1	-0.37	-0.05	-0.07	0.04	0.01	0.07	0.22	-0.09	1
Perceptual Curiosity		12	669	0.9	2.49 (0.60)	0.44	0.36	0.23	0.41	0.4	0.12	0.52	0.25	0.44	0.43	0.41	0.36	0.43	-0.24	0.4	0.03
TIE		13	669	0.81	2.98 (0.65)	0.45	0.44	0.08	0.47	0.54	0.14	0.74	0.46	0.58	0.66	0.48	0.46	0.59	-0.36	0.79	0
LWA		13	669	0.87	3.37 (0.64)	0.39	0.15	0.22	0.15	0.06	0.51	0.01	-0.13	-0.07	-0.05	0.12	0.17	0.07	0.1	-0.08	0.28
RWA		15	669	0.36	2.68 (0.84)	-0.17	0	0.03	-0.15	-0.07	-0.3	0	-0.06	0.03	0.01	0.01	-0.02	0.04	0.14	0.01	0.02
BFI-2	*Extraversion*	12	669	0.91	3.06 (0.40)	0.13	0.16	0.03	0.31	0.24	-0.16	0.38	0.34	0.44	0.31	0.19	0.17	0.17	-0.22	0.33	-0.31
	Agreeableness	12	669	0.69	3.14 (0.89)	-0.01	0.02	0.11	-0.07	0.03	-0.09	0.16	0	0.02	0.1	0.15	0.28	0.21	0.13	0.06	-0.08
	Conscientiousness	12	669	0.88	3.82 (0.51)	-0.2	-0.08	-0.02	-0.11	-0.03	-0.32	0.19	0.25	0.16	0.15	0.05	0.09	0.09	0.24	0.11	-0.27
	Neuroticism	12	669	0.94	4.08 (0.57)	0.25	0.17	0.4	-0.16	-0.09	0.28	-0.23	-0.44	-0.23	-0.18	0	0	-0.03	0.28	-0.22	0.71
X18	*Realistic*	3	669	0.75	2.74 (1.06)	-0.06	0.04	-0.22	0.1	0.15	-0.11	0.18	0.2	0.2	0.23	0.05	0.02	0.05	-0.21	0.24	0.01
	Investigative	3	669	0.86	2.38 (0.97)	0.2	0.22	-0.08	0.3	0.36	0.03	0.45	0.37	0.36	0.52	0.24	0.2	0.27	-0.31	0.5	-0.03
	Artistic	3	669	0.76	3.20 (1.08)	0.34	0.32	0.18	0.29	0.33	0.08	0.41	0.09	0.39	0.28	0.51	0.21	0.37	-0.23	0.31	0.06
	Social	3	669	0.79	2.73 (1.08)	0.26	0.21	0.2	0.24	0.26	0.02	0.4	0.12	0.3	0.3	0.34	0.36	0.35	-0.11	0.26	-0.06
	Enterprising	3	669	0.79	3.71 (0.88)	-0.03	0.07	-0.09	0.14	0.12	-0.2	0.3	0.34	0.33	0.25	0.11	0.14	0.1	-0.14	0.36	-0.21
	Conventional	3	669	0.75	2.95 (1.04)	-0.02	0.09	-0.1	0.09	0.16	-0.15	0.27	0.29	0.23	0.27	0.1	0.12	0.13	-0.1	0.34	-0.11
ICAR		10	669	0.7	2.91 (0.98)	0.04	-0.01	-0.08	0.08	0.11	0.07	0.09	0.12	0.02	0.19	-0.01	0.06	0.01	-0.13	0.16	-0.02
Sandia Matrices		10	669	0.72	6.28 (2.20)	0.07	0.05	-0.08	0.08	0.14	0.09	0.16	0.14	0.12	0.22	0.05	0.08	0.07	-0.13	0.2	-0.02
Divergent Thinking	*Alternative Uses*	2	669		12.60 (6.24)	0.16	0.18	0.03	0.08	0.17	0.11	0.2	0.07	0.17	0.19	0.14	0.13	0.19	-0.1	0.19	0.06
	Consequences	2	669		10.07 (5.28)	0.12	0.15	0	0.04	0.12	0.09	0.11	-0.01	0.09	0.13	0.06	0.09	0.14	-0.09	0.11	0.05

Scale	Facets	Items	*n*	*α*	*M (SD)*	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
	Total	4	669		22.67 (10.43)	0.16	0.18	0.02	0.07	0.16	0.11	0.17	0.04	0.15	0.18	0.11	0.12	0.19	-0.1	0.17	0.06
CAQ	*Arts*	6	669		7.13 (.89)	0.35	0.3	0.15	0.26	0.27	0.19	0.3	0.06	0.31	0.23	0.3	0.15	0.28	-0.16	0.27	0.16
	Science	2	669		1.48 (3.41)	0.06	0.08	-0.07	0.1	0.16	0.02	0.23	0.22	0.25	0.25	0.06	0.09	0.12	-0.09	0.24	-0.02
	Total	10	669		8.61 (11.06)	0.33	0.29	0.11	0.27	0.29	0.17	0.34	0.12	0.35	0.29	0.29	0.16	0.29	-0.17	0.31	0.14

Table 2
Descriptive Statistics and Correlations for Measures (Continued)

Scale	**Facets**	**Items**	***n***	***α***	***M (SD)***	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
BFI-2-O		7	669	.80	3.81 (0.72)	0.4	0.56	0.03	-0.05	0.31	0.08	0.07	-0.12	0.08	0.29	0.42	0.32	0.17	0.14	0.01	0.11
	Intellectual Curiosity	2	669	.72	3.79 (0.87)	0.33	0.62	-0.01	-0.06	0.19	0.01	0.02	-0.05	0.14	0.38	0.28	0.25	0.19	0.23	0.08	0.15
	Aesthetic Sensitivity	2	669	.51	3.69 (0.99)	0.29	0.39	0.09	-0.07	0.15	0.15	-0.01	-0.04	-0.04	0.13	0.41	0.27	0.02	0.01	0.03	0.11
	Creative Imagination	3	669	.79	3.91 (0.85)	0.35	0.38	-0.01	0.01	0.36	0.03	0.14	-0.17	0.09	0.21	0.31	0.25	0.2	0.11	-0.06	0.03
BFAS-O		17	669	.85	3.85 (0.52)	0.48	0.64	0.01	0.03	0.39	0.11	0.21	-0.22	0.11	0.37	0.37	0.35	0.27	0.23	0.05	0.1
	Intellect	9	669	.86	3.71 (0.67)	0.36	0.58	-0.1	0.02	0.4	0.02	0.26	-0.38	0.18	0.4	0.19	0.23	0.35	0.31	0.1	0.11
	Openness	8	669	.79	4.00 (0.61)	0.43	0.44	0.14	0.03	0.2	0.18	0.07	0.07	-0.03	0.18	0.44	0.35	0.06	0.04	-0.04	0.05
FIFFM-O		20	669	.86	3.69 (0.53)	0.51	0.61	0.25	-0.12	0.3	0.01	-0.07	0.03	0.08	0.33	0.39	0.32	0.13	0.1	0.07	0.1
	Intellectance	5	669	.75	3.90 (0.73)	0.43	0.6	0.11	0.02	0.22	0.14	0.08	-0.04	0.12	0.36	0.47	0.34	0.14	0.18	0.06	0.1
	Novel Experience Seeking	8	669	.80	3.98 (0.59)	0.47	0.51	0.11	0.05	0.44	0.05	0.1	-0.09	0.12	0.3	0.25	0.31	0.23	0.17	-0.02	0.02
	Non-traditionalism	7	669	.75	3.16 (0.74)	0.3	0.37	0.35	-0.32	0.01	-0.12	-0.33	0.19	-0.03	0.15	0.23	0.12	-0.08	-0.07	0.11	0.11
HEXACO-O		11	669	.78	3.76 (0.64)	0.46	0.67	0.06	-0.02	0.22	0.06	0.02	-0.07	0.22	0.46	0.46	0.28	0.17	0.23	0.1	0.13
	Aesthetic Appreciation	3	669	.56	3.68 (0.90)	0.34	0.47	0.03	0.03	0.13	0.16	0.06	0	0.14	0.3	0.46	0.26	0.09	0.12	0	0.05
	Inquisitiveness	4	669	.73	3.84 (0.87)	0.34	0.54	-0.11	-0.04	0.23	0.02	0.14	-0.24	0.31	0.49	0.24	0.19	0.25	0.33	0.15	0.12
	Creativity	1	669	1	3.97 (1.13)	0.27	0.35	0.07	0.04	0.17	0.05	-0.02	0.04	0.03	0.18	0.48	0.18	0.06	0.03	0.01	0.11
	Unconventionality	3	669	.66	3.67 (0.79)	0.36	0.49	0.25	-0.06	0.07	-0.05	-0.18	0.13	0.03	0.21	0.26	0.18	0	0.05	0.07	0.1
IPIP-O		13	669	.79	3.55 (0.64)	0.44	0.45	0.39	-0.17	0.13	-0.01	-0.2	0.25	-0.06	0.2	0.34	0.26	-0.03	-0.02	0.04	0.07
	Imagination	3	669	.79	3.86 (0.91)	0.36	0.44	0.15	0	0.16	0.02	-0.08	0.17	0.04	0.22	0.32	0.21	0.07	0.09	-0.01	0.05
	Emotionality	3	669	.8	3.62 (0.98)	0.23	0.08	0.22	0.03	0.03	0.11	-0.02	0.4	-0.22	-0.08	0.18	0.2	-0.09	-0.1	-0.08	-0.08
	Adventurousness	3	669	.74	3.05 (0.91)	0.41	0.47	0.15	-0.15	0.31	-0.07	-0.11	-0.16	0.1	0.3	0.29	0.24	0.14	0.09	0.08	0.08
	Intellect	1	669	1	4.04 (1.02)	0.4	0.54	0.06	-0.07	0.24	0.03	-0.03	-0.09	0.15	0.36	0.33	0.26	0.12	0.16	0.11	0.14
	Liberalism	3	669	.69	3.51 (1.12)	0.12	0.14	0.51	-0.3	-0.16	-0.09	-0.32	0.28	-0.11	0.03	0.08	0.02	-0.2	-0.15	0.07	0.09
Openness Inventory		48	669	.93	3.85 (0.51)	0.52	0.74	0.01	0	0.38	0.16	0.19	-0.23	0.18	0.45	0.41	0.4	0.3	0.27	0.09	0.16

Scale	**Facets**	**Items**	***n***	***α***	***M (SD)***	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
	Intellectual Efficiency	8	669	.89	3.46 (0.83)	0.25	0.46	-0.13	-0.06	0.34	0	0.25	-0.44	0.2	0.37	0.09	0.12	0.34	0.29	0.12	0.14
	Ingenuity	8	669	.88	3.59 (0.80)	0.44	0.58	-0.07	0.03	0.44	0.02	0.16	-0.23	0.2	0.36	0.39	0.3	0.33	0.23	0.02	0.12
	Curiosity	9	669	.79	4.13 (0.57)	0.43	0.66	-0.05	0.01	0.31	0.1	0.15	-0.18	0.23	0.52	0.28	0.3	0.25	0.27	0.19	0.22
	Aesthetics	6	669	.84	3.86 (0.58)	0.41	0.48	0.12	0.01	0.19	0.15	0.05	0	0.05	0.24	0.51	0.34	0.11	0.1	-0.01	0.05
	Tolerance	9	669	.77	4.09 (0.58)	0.36	0.46	0.17	-0.02	0.17	0.28	0.09	0	0.02	0.2	0.21	0.36	0.14	0.12	0.06	0.08
	Depth	8	669	.79	3.89 (0.65)	0.43	0.59	0.07	0.04	0.17	0.21	0.09	-0.03	0.05	0.27	0.37	0.35	0.1	0.13	0.01	0.07
Need for Closure		15	669	0.89	3.41 (0.72)	-0.24	-0.36	0.1	0.14	-0.22	0.13	0.24	0.28	-0.21	-0.31	-0.23	-0.11	-0.14	-0.1	-0.13	-0.13
Need for Cognition		18	669	0.92	3.36 (0.78)	0.4	0.79	-0.08	0.01	0.33	0.06	0.11	-0.22	0.24	0.5	0.31	0.26	0.36	0.34	0.16	0.2
SPQ		32	669	0.94	2.58 (0.73)	0.03	0	0.28	0.02	-0.31	-0.08	-0.27	0.71	0.01	-0.03	0.06	-0.06	-0.21	-0.11	-0.02	-0.02
Perceptual Curiosity		12	669	0.9	2.49 (0.60)	1	0.51	0.14	0.07	0.46	0	0.08	-0.09	0.15	0.28	0.35	0.35	0.25	0.22	-0.05	-0.04
TIE		13	669	0.81	2.98 (0.65)	0.51	1	0.02	0.09	0.38	0.06	0.11	-0.15	0.34	0.58	0.41	0.33	0.37	0.4	0.16	0.14
LWA		13	669	0.87	3.37 (0.64)	0.14	0.02	1	-0.02	-0.04	0.02	-0.12	0.35	-0.15	-0.03	0.12	0.11	-0.1	-0.06	-0.09	-0.13
RWA		15	669	0.36	2.68 (0.84)	0.07	0.09	-0.02	1	0.19	0.09	0.21	-0.1	0.13	0.1	0.06	0.12	0.12	0.13	-0.03	-0.08
BFI-2	*Extraversion*	12	669	0.91	3.06 (0.40)	0.46	0.38	-0.04	0.19	1	-0.08	0.32	-0.43	0.18	0.27	0.29	0.36	0.5	0.31	-0.08	-0.13
	Agreeableness	12	669	0.69	3.14 (0.89)	0	0.06	0.02	0.09	-0.08	1	0.29	0.03	-0.11	-0.1	-0.04	0.27	-0.06	-0.08	0	-0.03
	Conscientiousness	12	669	0.88	3.82 (0.51)	0.08	0.11	-0.12	0.21	0.32	0.29	1	-0.31	0.01	0.04	-0.01	0.23	0.31	0.22	-0.08	-0.1
	Neuroticism	12	669	0.94	4.08 (0.57)	-0.09	-0.15	0.35	-0.1	-0.43	0.03	-0.31	1	-0.18	-0.15	-0.01	-0.07	-0.35	-0.22	0.01	-0.01
X18	*Realistic*	3	669	0.75	2.74 (1.06)	0.15	0.34	-0.15	0.13	0.18	-0.11	0.01	-0.18	1	0.57	0.18	0.02	0.3	0.4	0.12	0.11
	Investigative	3	669	0.86	2.38 (0.97)	0.28	0.58	-0.03	0.1	0.27	-0.1	0.04	-0.15	0.57	1	0.28	0.18	0.31	0.43	0.18	0.19
	Artistic	3	669	0.76	3.20 (1.08)	0.35	0.41	0.12	0.06	0.29	-0.04	-0.01	-0.01	0.18	0.28	1	0.34	0.19	0.16	-0.03	0.04
	Social	3	669	0.79	2.73 (1.08)	0.35	0.33	0.11	0.12	0.36	0.27	0.23	-0.07	0.02	0.18	0.34	1	0.29	0.17	-0.03	-0.03
	Enterprising	3	669	0.79	3.71 (0.88)	0.25	0.37	-0.1	0.12	0.5	-0.06	0.31	-0.35	0.3	0.31	0.19	0.29	1	0.66	0.02	-0.05
	Conventional	3	669	0.75	2.95 (1.04)	0.22	0.4	-0.06	0.13	0.31	-0.08	0.22	-0.22	0.4	0.43	0.16	0.17	0.66	1	0.07	0.01
ICAR		10	669	0.7	2.91 (0.98)	-0.05	0.16	-0.09	-0.03	-0.08	0	-0.08	0.01	0.12	0.18	-0.03	-0.03	0.02	0.07	1	0.45
Sandia Matrices		10	669	0.72	6.28 (2.20)	-0.04	0.14	-0.13	-0.08	-0.13	-0.03	-0.1	-0.01	0.11	0.19	0.04	-0.03	-0.05	0.01	0.45	1
Divergent Thinking	*Alternative Uses*	2	669		12.60 (6.24)	0.09	0.13	-0.03	-0.13	-0.03	0	-0.06	0.05	-0.04	0.04	0.09	0.08	-0.01	-0.03	0.24	0.25
	Consequences	2	669		10.07 (5.28)	0.06	0.05	-0.08	-0.11	-0.08	-0.04	-0.1	0.04	-0.06	-0.02	0.08	0.05	-0.04	-0.03	0.23	0.2

Scale	Facets	Items	*n*	*α*	*M (SD)*	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
	Total	4	669		22.67 (10.43)	0.08	0.1	-0.06	-0.14	-0.06	-0.02	-0.08	0.05	-0.05	0.01	0.1	0.07	-0.03	-0.03	0.26	0.25
CAQ	*Arts*	6	669		7.13 (.89)	0.29	0.25	0.14	-0.07	0.17	-0.1	-0.14	0.04	0.03	0.13	0.4	0.12	0.04	-0.01	0.07	0.05
	Science	2	669		1.48 (3.41)	0.12	0.25	-0.08	-0.01	0.12	-0.03	0.03	-0.1	0.24	0.32	0.03	0.03	0.09	0.09	0.18	0.16
	Total	10	669		8.61 (11.06)	0.3	0.3	0.1	-0.07	0.18	-0.1	-0.12	0.01	0.1	0.22	0.37	0.12	0.06	0.02	0.12	0.09

Table 2
Descriptive Statistics and Correlations for Measures (Continued)

Scale	**Facets**	**Items**	***n***	***α***	***M (SD)***	49	50	51	52	53	54
BFI-2-O		7	669	.80	3.81 (0.72)	0.2	0.13	0.18	0.35	0.16	0.36
	Intellectual Curiosity	2	669	.72	3.79 (0.87)	0.2	0.15	0.19	0.26	0.18	0.28
	Aesthetic Sensitivity	2	669	.51	3.69 (0.99)	0.15	0.07	0.12	0.31	0.07	0.3
	Creative Imagination	3	669	.79	3.91 (0.85)	0.14	0.1	0.13	0.27	0.14	0.29
BFAS-O		17	669	.85	3.85 (0.52)	0.21	0.11	0.18	0.3	0.19	0.33
	Intellect	9	669	.86	3.71 (0.67)	0.14	0.06	0.12	0.16	0.22	0.21
	Openness	8	669	.79	4.00 (0.61)	0.2	0.12	0.18	0.36	0.08	0.34
FIFFM-O		20	669	.86	3.69 (0.53)	0.2	0.13	0.18	0.37	0.13	0.37
	Intellectance	5	669	.75	3.90 (0.73)	0.2	0.14	0.19	0.35	0.1	0.34
	Novel Experience Seeking	8	669	.80	3.98 (0.59)	0.07	0.03	0.06	0.23	0.1	0.23
	Non-traditionalism	7	669	.75	3.16 (0.74)	0.21	0.14	0.2	0.34	0.12	0.34
HEXACO-O		11	669	.78	3.76 (0.64)	0.25	0.16	0.23	0.34	0.16	0.35
	Aesthetic Appreciation	3	669	.56	3.68 (0.90)	0.18	0.1	0.16	0.25	0.06	0.25
	Inquisitiveness	4	669	.73	3.84 (0.87)	0.16	0.08	0.13	0.16	0.15	0.19
	Creativity	1	669	1	3.97 (1.13)	0.18	0.11	0.16	0.35	0.06	0.33
	Unconventionality	3	669	.66	3.67 (0.79)	0.22	0.19	0.23	0.31	0.17	0.33
IPIP-O		13	669	.79	3.55 (0.64)	0.16	0.12	0.16	0.35	0.06	0.33
	Imagination	3	669	.79	3.86 (0.91)	0.18	0.15	0.18	0.3	0.08	0.29
	Emotionality	3	669	.8	3.62 (0.98)	0.03	0	0.02	0.15	-0.07	0.11
	Adventurousness	3	669	.74	3.05 (0.91)	0.08	0.04	0.07	0.26	0.1	0.27
	Intellect	1	669	1	4.04 (1.02)	0.17	0.12	0.16	0.27	0.16	0.29
	Liberalism	3	669	.69	3.51 (1.12)	0.11	0.09	0.11	0.19	0.02	0.17
Openness Inventory		48	669	.93	3.85 (0.51)	0.2	0.11	0.17	0.3	0.23	0.34
	Intellectual Efficiency	8	669	.89	3.46 (0.83)	0.07	-0.01	0.04	0.06	0.22	0.12

Scale	Facets	Items	*n*	*α*	*M (SD)*	49	50	51	52	53	54
	Ingenuity	8	669	.88	3.59 (0.80)	0.17	0.09	0.15	0.31	0.25	0.35
	Curiosity	9	669	.79	4.13 (0.57)	0.19	0.13	0.18	0.23	0.25	0.29
	Aesthetics	6	669	.84	3.86 (0.58)	0.14	0.06	0.11	0.3	0.06	0.29
	Tolerance	9	669	.77	4.09 (0.58)	0.13	0.09	0.12	0.15	0.09	0.16
	Depth	8	669	.79	3.89 (0.65)	0.19	0.14	0.19	0.28	0.12	0.29
Need for Closure		15	669	0.89	3.41 (0.72)	-0.1	-0.09	-0.1	-0.16	-0.09	-0.17
Need for Cognition		18	669	0.92	3.36 (0.78)	0.19	0.11	0.17	0.27	0.24	0.31
SPQ		32	669	0.94	2.58 (0.73)	0.06	0.05	0.06	0.16	-0.02	0.14
Perceptual Curiosity		12	669	0.9	2.49 (0.60)	0.09	0.06	0.08	0.29	0.12	0.3
TIE		13	669	0.81	2.98 (0.65)	0.13	0.05	0.1	0.25	0.25	0.3
LWA		13	669	0.87	3.37 (0.64)	-0.03	-0.08	-0.06	0.14	-0.08	0.1
RWA		15	669	0.36	2.68 (0.84)	-0.13	-0.11	-0.14	-0.07	-0.01	-0.07
BFI-2	*Extraversion*	12	669	0.91	3.06 (0.40)	-0.03	-0.08	-0.06	0.17	0.12	0.18
	Agreeableness	12	669	0.69	3.14 (0.89)	0	-0.04	-0.02	-0.1	-0.03	-0.1
	Conscientiousness	12	669	0.88	3.82 (0.51)	-0.06	-0.1	-0.08	-0.14	0.03	-0.12
	Neuroticism	12	669	0.94	4.08 (0.57)	0.05	0.04	0.05	0.04	-0.1	0.01
X18	*Realistic*	3	669	0.75	2.74 (1.06)	-0.04	-0.06	-0.05	0.03	0.24	0.1
	Investigative	3	669	0.86	2.38 (0.97)	0.04	-0.02	0.01	0.13	0.32	0.22
	Artistic	3	669	0.76	3.20 (1.08)	0.09	0.08	0.1	0.4	0.03	0.37
	Social	3	669	0.79	2.73 (1.08)	0.08	0.05	0.07	0.12	0.03	0.12
	Enterprising	3	669	0.79	3.71 (0.88)	-0.01	-0.04	-0.03	0.04	0.09	0.06
	Conventional	3	669	0.75	2.95 (1.04)	-0.03	-0.03	-0.03	-0.01	0.09	0.02
ICAR		10	669	0.7	2.91 (0.98)	0.24	0.23	0.26	0.07	0.18	0.12
Sandia Matrices		10	669	0.72	6.28 (2.20)	0.25	0.2	0.25	0.05	0.16	0.09
Divergent Thinking	*Alternative Uses*	2	669		12.60 (6.24)	1	0.64	0.92	0.22	0.16	0.24
	Consequences	2	669		10.07 (5.28)	0.64	1	0.89	0.2	0.1	0.21
	Total	4	669		22.67 (10.43)	0.92	0.89	1	0.23	0.15	0.25

Scale	Facets	Items	*n*	*α*	*M (SD)*	49	50	51	52	53	54
CAQ	*Arts*	6	669		7.13 (.89)	0.22	0.2	0.23	1	0.19	0.95
	Science	2	669		1.48 (3.41)	0.16	0.1	0.15	0.19	1	0.48
	Total	10	669		8.61 (11.06)	0.24	0.21	0.25	0.95	0.48	1

Table 3

Example Item Content of Factors Derived Through Bass-Ackwards Approach with Highest Correlated Items Per Factor Bolded

Scale	Item	F1.1	F2.1	F2.2	F3.1	F3.2	F3.3	F4.1	F4.2	F4.3	F4.4	F5.1	F5.2	F5.3	F5.4	F5.5	F6.1	F6.2	F6.3	F6.4	F6.5	F6.6
IPIP-O	I am not interested in abstract ideas (R)	**0.71**	0.53	0.27	0.38	0.23	0.25	0.30	0.19	0.22	0.22	0.18	0.23	0.21	0.19	0.20	0.18	0.25	0.18	0.15	0.20	0.14
Openness Inventory	I like coming up with imaginative plans	**0.69**	0.42	0.38	0.61	0.28	-0.13	0.05	0.15	**0.74**	-0.09	0.14	0.15	**0.71**	-0.05	-0.08	0.14	**0.74**	0.00	0.07	-0.07	-0.11
Openness Inventory	I am always interested in learning more about philosophy	**0.67**	0.55	0.21	0.62	0.12	0.00	0.53	0.08	0.21	-0.03	-0.03	0.26	0.20	0.46	-0.10	-0.03	0.21	0.46	0.20	-0.09	0.10
FIFFM-O	My friends think of me as somewhat philosophical	**0.64**	0.41	0.33	0.54	0.24	-0.08	0.35	0.18	0.33	-0.08	0.14	0.25	0.31	0.20	-0.09	0.13	0.37	0.19	0.14	-0.09	0.12
BFI-2-O	I avoid intellectual philosophical discussions (R)	**0.64**	0.38	0.37	0.34	0.32	0.11	0.25	0.27	0.23	0.09	0.22	0.15	0.23	0.22	0.06	0.21	0.30	0.20	0.01	0.06	0.24
Openness Inventory	I continually strive to uncover information about topics that are new to me	0.63	0.41	0.32	0.40	0.26	0.08	0.40	0.23	0.12	0.05	0.05	0.06	0.14	**0.59**	-0.06	0.05	0.14	**0.58**	-0.01	-0.06	0.19
BFI-2-O	I have little creativity (R)	0.62	0.39	0.32	0.59	0.23	-0.15	0.05	0.10	**0.71**	-0.11	0.20	0.30	**0.67**	-0.30	-0.03	0.20	**0.72**	-0.26	0.21	-0.02	-0.12
Openness Inventory	I don't like trying new things and would rather stick with what I know (R)	0.60	0.32	0.38	0.12	0.38	0.28	-0.02	0.31	0.30	0.27	0.27	-0.04	0.31	0.13	0.23	0.28	0.21	0.19	0.06	0.24	-0.23
Openness Inventory	I see the beauty in art when others do not	0.59	**0.64**	0.00	**0.87**	-0.13	-0.17	0.62	-0.17	0.33	-0.18	-0.06	**0.66**	0.26	-0.03	-0.10	-0.05	0.27	-0.01	0.69	-0.09	-0.18
Openness Inventory	I can develop inventive ideas of high quality	0.59	0.16	0.56	0.35	0.49	-0.17	-0.16	0.35	**0.72**	-0.11	0.31	-0.04	**0.71**	-0.10	-0.10	0.31	**0.71**	-0.04	-0.09	-0.10	-0.14
Openness Inventory	If I see artwork I like in a gallery, I will visit it more than once to fully appreciate it	0.59	0.58	0.07	**0.74**	-0.04	-0.09	**0.71**	-0.05	0.11	-0.13	0.00	0.60	0.05	0.16	-0.09	0.02	0.03	0.17	0.67	-0.08	-0.12
BFAS-O	I need a creative outlet	0.59	0.57	0.07	**0.72**	-0.04	-0.08	0.22	-0.13	0.63	-0.05	-0.04	0.38	0.58	-0.17	0.00	-0.04	0.64	-0.14	0.29	0.01	-0.09
IPIP-O	I have a vivid imagination	0.58	0.49	0.16	0.67	0.06	-0.12	0.16	-0.04	**0.65**	-0.08	0.03	0.32	**0.60**	-0.17	-0.03	0.02	**0.68**	-0.14	0.20	-0.02	-0.03
BFI-2-O	BFAS-O	0.58	0.36	0.31	0.43	0.25	-0.01	0.24	0.18	0.32	-0.01	0.15	0.17	0.31	0.15	-0.03	0.13	0.41	0.13	0.00	-0.03	0.24
Openness Inventory	I don't find literature especially interesting (R)	0.58	0.52	0.13	0.54	0.05	0.06	**0.70**	0.07	-0.09	-0.01	0.17	0.64	-0.15	0.10	0.06	0.18	-0.11	0.07	0.63	0.06	0.09

Scale	Item	F1.1	F2.1	F2.2	F3.1	F3.2	F3.3	F4.1	F4.2	F4.3	F4.4	F5.1	F5.2	F5.3	F5.4	F5.5	F6.1	F6.2	F6.3	F6.4	F6.5	F6.6
HEXACO-O	I would enjoy creating a work of art, such as a novel, a song, or a painting	0.57	**0.61**	0.01	**0.72**	-0.09	-0.04	0.44	-0.14	0.37	-0.04	0.00	0.57	0.31	-0.14	0.04	0.00	0.37	-0.13	0.50	0.04	-0.04
Openness Inventory	For me, there is nothing better than taking the time to think deeply about something	0.57	0.50	0.14	0.68	0.03	-0.13	0.48	-0.01	0.30	-0.13	-0.12	0.25	0.28	0.39	-0.19	-0.12	0.31	0.39	0.18	-0.19	0.06
Openness Inventory	I think viewing art is a waste of time (R)	0.57	**0.62**	0.00	0.62	-0.08	0.08	**0.70**	-0.07	-0.01	0.03	0.09	**0.73**	-0.09	-0.04	0.12	0.10	-0.04	-0.06	**0.72**	0.12	0.04
FIFFM-O	I like to try new things	0.57	0.38	0.27	0.26	0.25	0.19	0.08	0.18	0.32	0.19	0.01	-0.15	0.35	0.44	0.06	0.02	0.20	0.54	0.00	0.07	**-0.32**
FIFFM-O	I enjoy spending time in museums or art galleries	0.56	**0.62**	-0.01	0.63	-0.10	0.07	**0.73**	-0.08	-0.03	0.01	0.04	**0.69**	-0.10	0.07	0.08	0.05	-0.12	0.06	**0.76**	0.08	-0.09
BFAS-O	I believe in the importance of art	0.56	**0.65**	-0.05	0.67	-0.14	0.07	**0.68**	-0.13	0.05	0.02	0.02	**0.71**	-0.03	-0.03	0.11	0.03	0.00	-0.04	**0.73**	0.11	-0.04
BFI-2-O	I think poetry and plays are boring (R)	0.55	0.56	0.05	0.62	-0.04	0.00	0.68	-0.03	0.02	-0.05	0.09	**0.66**	-0.05	0.03	0.03	0.10	-0.06	0.02	**0.73**	0.03	-0.11
BFAS-O	I like to solve complex problems	0.54	0.04	0.64	0.06	0.62	0.01	0.02	0.54	0.20	0.00	0.40	-0.15	0.24	0.32	-0.06	0.40	0.22	0.32	-0.19	-0.06	0.10
Openness Inventory	I learn a great deal from people with differing beliefs	0.53	0.55	0.04	0.35	0.01	0.29	0.46	0.02	-0.04	0.24	-0.15	0.07	-0.03	**0.67**	0.10	-0.15	-0.11	**0.69**	0.13	0.10	0.01
Openness Inventory	I'm happiest when conversations are practical rather than philosophical (R)	0.53	0.52	0.06	0.31	0.04	0.31	0.25	0.02	0.16	0.28	0.04	0.23	0.14	0.11	0.26	0.04	0.20	0.09	0.11	0.26	0.19
IPIP-O	I prefer to stick with things that I know (R)	0.52	0.36	0.23	0.07	0.25	0.38	-0.07	0.19	0.27	0.38	0.16	-0.07	0.28	0.12	0.32	0.18	0.16	0.19	0.06	0.33	-0.28
BFI-2-O	I am inventive, find clever ways to do things	0.52	0.13	0.50	0.38	0.42	-0.24	-0.17	0.28	**0.73**	-0.18	0.27	-0.01	**0.71**	-0.17	-0.15	0.27	**0.74**	-0.12	-0.08	-0.15	-0.13
Openness Inventory	I have no interest in learning new information (R)	0.51	0.31	0.28	0.13	0.27	0.25	0.30	0.27	-0.07	0.20	0.20	0.10	-0.06	0.35	0.15	0.20	-0.04	0.32	0.03	0.14	0.25
HEXACO-O	I like people who have unconventional views	0.50	0.53	0.02	0.21	0.02	0.43	0.08	-0.01	0.22	0.42	-0.04	0.03	0.23	0.20	0.34	-0.04	0.25	0.20	-0.06	0.34	0.12
Openness Inventory	Tasks that require a lot of thinking confuse me easily	0.50	-0.12	**0.76**	-0.19	**0.79**	0.10	0.02	**0.74**	-0.05	0.07	0.71	-0.02	-0.03	0.09	0.08	0.72	-0.04	0.06	-0.03	0.08	0.14

Scale	Item	F1.1	F2.1	F2.2	F3.1	F3.2	F3.3	F4.1	F4.2	F4.3	F4.4	F5.1	F5.2	F5.3	F5.4	F5.5	F6.1	F6.2	F6.3	F6.4	F6.5	F6.6
FIFFM-O	I tend to take an unconventional approach to things	0.50	0.46	0.09	0.31	0.06	0.24	-0.12	-0.02	0.56	0.28	-0.07	-0.07	0.56	0.06	0.21	-0.07	0.57	0.11	-0.15	0.22	-0.03
IPIP-O	I like to get lost in thought	0.48	0.58	-0.06	0.59	-0.14	0.07	0.26	-0.19	0.41	0.08	-0.18	0.26	0.38	0.08	0.06	-0.20	0.51	0.07	0.04	0.06	0.23
HEXACO-O	I think of myself as a somewhat eccentric person	0.48	0.54	-0.02	0.44	-0.07	0.19	0.03	-0.14	0.50	0.22	-0.16	0.07	0.49	0.06	0.17	-0.16	0.53	0.09	-0.03	0.17	0.01
Openness Inventory	I always have difficulty applying new concepts (R)	0.48	-0.13	0.75	-0.18	0.77	0.07	-0.04	0.71	0.03	0.04	**0.75**	0.04	0.03	-0.11	0.10	**0.76**	0.01	-0.11	0.08	0.10	0.01
BFAS-O	I have difficulty imagining things (R)	0.48	0.23	0.33	0.46	0.24	-0.20	0.13	0.16	0.45	-0.18	0.24	0.29	0.41	-0.21	-0.10	0.23	0.49	-0.20	0.18	-0.10	0.03
Openness Inventory	I like to analyze things instead of taking them at face value	0.47	0.34	0.20	0.29	0.16	0.11	0.21	0.13	0.18	0.09	0.00	-0.01	0.19	0.40	0.00	-0.02	0.26	0.38	-0.17	0.00	0.29
Openness Inventory	I don't find Classical Ballet interesting (R)	0.46	0.45	0.05	0.54	-0.03	-0.03	0.64	-0.01	-0.05	-0.09	0.08	0.59	-0.10	0.07	-0.02	0.10	-0.15	0.07	**0.71**	-0.02	-0.17
Scale	Item	F1.1	F2.1	F2.2	F3.1	F3.2	F3.3	F4.1	F4.2	F4.3	F4.4	F5.1	F5.2	F5.3	F5.4	F5.5	F6.1	F6.2	F6.3	**F6.4**	F6.5	F6.6
FIFFM-O	Every once in a while, I like to shake things up and try something different	0.46	0.40	0.12	0.25	0.10	0.22	0.02	0.04	0.34	0.23	-0.10	-0.15	0.37	0.36	0.11	-0.10	0.26	0.43	**-0.07**	0.12	-0.22
BFAS-O	I see beauty in things that others might not notice	0.46	0.54	-0.05	0.78	-0.17	-0.19	0.47	-0.21	0.37	-0.18	-0.19	0.43	0.32	0.08	-0.16	-0.19	0.37	0.09	**0.36**	-0.15	-0.02
IPIP-O	I am attached to conventional ways (R)	0.46	0.49	0.01	-0.12	0.08	0.75	-0.14	0.06	0.12	0.73	0.10	-0.05	0.14	0.01	0.67	0.11	0.10	0.04	**-0.03**	0.67	-0.04
FIFFM-O	I am tolerant of different lifestyles and cultures	0.45	0.50	-0.01	0.15	0.00	0.46	0.26	0.01	-0.05	0.41	-0.08	0.03	-0.03	0.44	0.30	-0.08	-0.09	0.45	**0.06**	0.30	0.03
Openness Inventory	I am usually not very quick in my thinking, but have strengths in other areas (R)	0.44	-0.21	0.80	-0.27	0.83	0.07	-0.12	0.77	0.02	0.05	0.87	0.06	0.02	-0.26	0.15	0.88	0.01	-0.27	**0.09**	0.14	0.02
Openness Inventory	I like to hear different people's views on political issues	0.44	0.39	0.10	0.29	0.08	0.17	0.39	0.08	-0.04	0.13	-0.12	-0.02	-0.02	0.67	-0.02	-0.12	-0.08	0.67	**0.02**	-0.02	0.05
IPIP-O	I dislike changes (R)	0.44	0.22	0.29	-0.02	0.31	0.31	-0.12	0.26	0.22	0.31	0.15	-0.21	0.26	0.24	0.22	0.17	0.08	0.33	**-0.01**	0.23	-0.39
FIFFM-O	I'm a bit unconventional	0.43	0.49	-0.02	0.35	-0.05	0.22	-0.05	-0.12	0.49	0.25	-0.15	-0.02	0.49	0.07	0.19	-0.17	0.57	0.08	**-0.19**	0.20	0.14
FIFFM-O	I am quite tolerant of alternative points of view	0.41	0.33	0.14	0.12	0.15	0.28	0.19	0.14	0.01	0.24	-0.03	-0.11	0.04	0.52	0.12	-0.02	-0.05	0.54	**-0.03**	0.12	-0.05
HEXACO-O	I would be very bored by a book about the	0.41	0.05	0.45	0.01	0.45	0.07	0.24	0.44	-0.13	0.02	0.32	-0.02	-0.10	0.40	-0.03	0.32	-0.12	0.37	**-0.04**	-0.04	0.18

	history of science and technology (R)																					
Scale	**Item**	**F1.1**	**F2.1**	**F2.2**	**F3.1**	**F3.2**	**F3.3**	**F4.1**	**F4.2**	**F4.3**	**F4.4**	**F5.1**	**F5.2**	**F5.3**	**F5.4**	**F5.5**	**F6.1**	**F6.2**	**F6.3**	**F6.4**	**F6.5**	**F6.6**
Openness Inventory	I am very quick at processing information	0.39	-0.24	0.77	-0.21	0.79	-0.03	-0.11	0.72	0.05	-0.04	0.74	-0.03	0.06	-0.11	0.01	0.75	0.01	-0.11	**0.04**	0.01	-0.07
Openness Inventory	I have never really been interested in science (R)	0.39	0.11	0.35	0.04	0.35	0.11	0.18	0.33	-0.05	0.07	0.25	0.01	-0.03	0.29	0.03	0.24	0.00	0.26	**-0.08**	0.02	0.26
Openness Inventory	I regard philosophy as a disease of the idle (R)	0.39	0.38	0.04	0.12	0.05	0.35	0.26	0.07	-0.09	0.30	0.09	0.20	-0.10	0.15	0.28	0.08	0.01	0.09	**0.01**	0.28	0.41
Openness Inventory	I seldom seek new opportunities to extent my knowledge (R)	0.38	0.22	0.23	0.07	0.23	0.20	0.24	0.23	-0.10	0.15	0.24	0.17	-0.10	0.12	0.16	0.24	-0.03	0.08	**0.07**	0.15	0.29
BFAS-O	I am quick to understand things	0.38	-0.27	0.78	-0.22	0.80	-0.05	-0.07	0.74	-0.01	-0.07	0.72	-0.06	0.01	-0.02	-0.03	0.73	-0.02	-0.03	**-0.03**	-0.03	0.03
Openness Inventory	Like most people I am open to listening to what others have to say	0.38	0.34	0.08	0.31	0.04	0.08	0.46	0.06	-0.10	0.03	-0.13	0.05	-0.09	0.65	-0.09	-0.13	-0.12	0.64	**0.05**	-0.09	0.13
FIFFM-O	I rarely do things just because it's something different to do (R)	0.38	0.29	0.14	0.11	0.14	0.24	-0.05	0.09	0.26	0.24	0.04	-0.07	0.27	0.12	0.19	0.05	0.19	0.18	**0.01**	0.19	-0.21
BFAS-O	I learn things slowly (R)	0.37	-0.25	0.75	-0.21	0.77	-0.04	-0.08	0.71	0.01	-0.05	0.80	0.07	0.01	-0.24	0.05	0.80	0.00	-0.25	**0.09**	0.04	0.02
Openness Inventory	I have to read complex information several times before I fully understand it	0.37	-0.24	0.74	-0.26	0.77	0.03	-0.09	0.71	-0.03	0.01	0.75	-0.01	-0.02	-0.13	0.07	0.76	-0.05	-0.14	**0.05**	0.07	-0.01
HEXACO-O	I've never really enjoyed looking through an encyclopedia (R)	0.36	0.14	0.29	0.23	0.25	-0.06	0.42	0.25	-0.12	-0.11	0.20	0.22	-0.13	0.27	-0.11	0.20	-0.10	0.23	**0.18**	-0.12	0.18
FIFFM-O	I don't care much for traveling (R)	0.33	0.24	0.14	0.08	0.14	0.21	0.09	0.12	0.07	0.19	0.04	-0.06	0.09	0.27	0.12	0.05	-0.05	0.33	**0.11**	0.13	-0.26
Openness Inventory	I believe in-depth discussions are a complete waste of time (R)	0.33	0.34	0.02	0.06	0.04	0.37	0.24	0.07	-0.15	0.31	0.08	0.15	-0.15	0.18	0.29	0.06	-0.05	0.12	**-0.02**	0.28	0.42
Scale	Item	F1.1	F2.1	F2.2	F3.1	F3.2	F3.3	F4.1	F4.2	F4.3	F4.4	F5.1	F5.2	F5.3	F5.4	F5.5	F6.1	F6.2	F6.3	**F6.4**	F6.5	F6.6
Openness Inventory	I often need people to explain things to me (R)	0.33	-0.30	0.76	-0.32	0.80	0.01	-0.04	0.76	-0.14	-0.02	0.81	0.01	-0.13	-0.11	0.05	0.81	-0.14	-0.14	**0.04**	0.04	0.09
FIFFM-O	I usually disagree with the "status quo"	0.33	0.45	-0.11	0.24	-0.12	0.29	-0.03	-0.16	0.34	0.30	-0.16	0.02	0.33	0.03	0.26	-0.17	0.39	0.04	**-0.10**	0.26	0.09
BFAS-O	I seldom daydream (R)	0.32	0.46	-0.13	0.41	-0.18	0.12	0.22	-0.19	0.23	0.12	-0.10	0.31	0.19	-0.09	0.15	-0.12	0.33	-0.13	**0.11**	0.15	0.26
FIFFM-O	I'll try anything at least once	0.28	0.24	0.08	0.11	0.08	0.18	-0.14	0.02	0.33	0.20	-0.12	-0.26	0.36	0.27	0.09	-0.11	0.22	0.36	**-0.12**	0.10	-0.35
IPIP-O	I experience my emotions intensely	0.26	0.52	-0.26	0.60	-0.34	-0.03	0.31	-0.36	0.29	-0.02	-0.29	0.37	0.25	-0.04	0.01	-0.29	0.31	-0.03	**0.27**	0.01	0.01
IPIP-O	I believe in one true religion (R)	0.26	0.38	-0.11	-0.20	-0.04	0.69	-0.13	-0.03	-0.03	0.66	0.03	-0.04	-0.01	-0.02	0.62	0.03	0.01	-0.03	**-0.11**	0.62	0.16

Scale	Item	F1.1	F2.1	F2.2	F3.1	F3.2	F3.3	F4.1	F4.2	F4.3	F4.4	F5.1	F5.2	F5.3	F5.4	F5.5	F6.1	F6.2	F6.3	F6.4	F6.5	F6.6
FIFFM-O	The traditional family is essential to our society (R)	0.25	0.50	-0.26	-0.23	-0.18	0.89	-0.21	-0.16	0.01	0.86	-0.02	0.01	0.02	-0.20	0.86	-0.02	0.01	-0.18	**-0.01**	0.85	0.03
Openness Inventory	I understand that people can have different attitudes toward certain things than I do	0.25	0.25	0.02	0.16	0.01	0.14	0.29	0.03	-0.11	0.10	-0.13	-0.03	-0.09	0.52	-0.01	-0.14	-0.08	0.50	**-0.10**	-0.02	0.23
FIFFM-O	I believe in strict standards of right and wrong (R)	0.24	0.41	-0.17	-0.16	-0.10	0.69	-0.17	-0.09	0.05	0.67	-0.02	-0.04	0.06	-0.08	0.63	-0.01	0.02	-0.05	**-0.01**	0.63	-0.05
IPIP-O	I tend to vote for conservative political candidates (R)	0.23	0.49	-0.28	-0.11	-0.22	0.73	-0.06	-0.19	-0.03	0.70	-0.05	0.12	-0.04	-0.17	0.71	-0.04	-0.03	-0.16	**0.09**	0.70	0.05
FIFFM-O	I believe that there is a proper way to behave in almost any situation (R)	0.20	0.36	-0.17	-0.16	-0.10	0.63	-0.20	-0.10	0.07	0.62	-0.02	-0.05	0.08	-0.12	0.60	-0.02	0.05	-0.09	**-0.03**	0.60	-0.05
IPIP-O	I experience very few emotional highs and lows (R)	0.19	0.44	-0.26	0.38	-0.30	0.11	0.23	-0.30	0.15	0.10	-0.20	0.32	0.11	-0.10	0.14	-0.20	0.18	-0.11	**0.24**	0.14	0.06
IPIP-O	I seldom get emotional (R)	0.18	0.38	-0.21	0.35	-0.25	0.08	0.25	-0.25	0.10	0.07	-0.10	0.39	0.05	-0.19	0.14	-0.11	0.12	-0.20	**0.31**	0.14	0.06
Openness Inventory	In a quiz I like to know what the answers are if I get the questions wrong.	0.18	0.13	0.07	0.07	0.07	0.08	0.19	0.08	-0.09	0.05	0.03	0.05	-0.09	0.22	0.02	0.02	-0.02	0.18	**-0.06**	0.01	0.28
IPIP-O	I like to stand during the national anthem (R)	0.11	0.43	-0.35	-0.06	-0.30	0.60	-0.14	-0.29	0.07	0.59	-0.17	0.05	0.07	-0.19	0.59	-0.17	0.11	-0.19	**-0.03**	0.59	0.08

Table 3

Example Item Content of Factors Derived Through Bass-Ackwards Approach with Highest Correlated Items Per Factor Bolded (Continued)

Scale	Item	F7.1	F7.2	F7.3	F7.4	F7.5	F7.6	F7.7	F8.1	F8.2	F8.3	F8.4	F8.5	F8.6	F8.7	F8.8	F9.1	F9.2	F9.3	F9.4	F9.5	F9.6	F9.7	F9.8	F9.9
IPIP-O	I am not interested in abstract ideas (R)	0.16	0.13	0.19	0.31	0.21	0.02	0.07	0.19	0.03	0.18	0.21	0.19	0.09	0.04	0.21	0.15	-0.03	0.25	0.21	0.29	0.12	-0.04	0.01	0.14
Openness Inventory	I like coming up with imaginative plans	0.04	0.13	**0.67**	0.08	-0.06	0.16	-0.07	0.06	0.05	**0.62**	0.21	-0.07	-0.06	0.17	-0.04	0.05	0.01	**0.65**	-0.07	0.16	-0.04	0.13	0.14	-0.08
Openness Inventory	I am always interested in learning more about philosophy	0.28	-0.12	0.08	**0.65**	-0.05	0.03	-0.07	0.30	-0.01	-0.09	**0.65**	-0.04	-0.08	0.00	0.14	0.23	-0.07	-0.01	-0.03	**0.75**	-0.04	-0.07	0.13	0.04
FIFFM-O	My friends think of me as somewhat philosophical	0.19	0.04	0.26	**0.54**	-0.04	-0.09	-0.11	0.21	0.10	0.11	0.56	-0.03	-0.12	-0.10	0.12	0.17	0.06	0.15	-0.03	**0.54**	-0.10	-0.14	0.21	0.08
BFI-2-O	I avoid intellectual philosophical discussions (R)	0.05	0.12	0.18	**0.58**	0.11	-0.13	0.00	0.07	0.12	0.08	0.52	0.10	0.00	-0.14	0.24	0.02	0.06	0.14	0.11	0.52	0.03	-0.19	0.16	0.17
Openness Inventory	I continually strive to uncover information about topics that are new to me	-0.02	0.03	0.09	0.36	-0.08	0.18	0.37	-0.01	0.04	0.04	0.27	-0.08	0.39	0.17	0.13	0.01	0.07	-0.02	-0.09	0.16	0.34	0.23	0.19	0.24
BFI-2-O	I have little creativity (R)	0.15	0.22	**0.72**	-0.15	-0.02	0.06	-0.09	0.17	0.04	**0.75**	-0.05	-0.05	-0.07	0.10	-0.05	0.18	0.00	**0.78**	-0.04	-0.08	-0.05	0.06	0.04	-0.08
Openness Inventory	I don't like trying new things and would rather stick with what I know (R)	0.07	0.27	0.18	-0.01	0.20	0.38	-0.06	0.09	0.08	0.31	-0.14	0.17	-0.04	0.43	0.18	0.07	0.04	0.36	0.20	-0.06	-0.02	0.37	-0.12	0.11
Openness Inventory	I see the beauty in art when others do not	0.69	-0.05	0.29	0.00	-0.08	0.07	-0.21	0.73	-0.04	0.23	0.08	-0.08	-0.22	0.07	-0.13	0.72	-0.04	0.21	-0.08	0.10	-0.21	0.06	0.05	-0.11
Openness Inventory	I can develop inventive ideas of high quality	-0.12	0.29	**0.64**	0.06	-0.09	0.17	-0.09	-0.11	0.17	**0.63**	0.14	-0.11	-0.08	0.19	0.03	-0.11	0.13	**0.67**	-0.10	0.07	-0.07	0.16	0.10	-0.01
Openness Inventory	If I see artwork I like in a gallery, I will visit it more than once to fully appreciate it	0.69	0.00	0.06	0.12	-0.08	0.09	-0.13	0.74	-0.05	0.07	0.01	-0.09	-0.13	0.10	0.06	0.72	-0.04	0.06	-0.09	0.08	-0.13	0.10	-0.05	0.10

Scale	Item	F7.1	F7.2	F7.3	F7.4	F7.5	F7.6	F7.7	F8.1	F8.2	F8.3	F8.4	F8.5	F8.6	F8.7	F8.8	F9.1	F9.2	F9.3	F9.4	F9.5	F9.6	F9.7	F9.8	F9.9
BFAS-O	I need a creative outlet	0.25	-0.02	0.62	-0.06	0.02	0.06	-0.08	0.27	-0.09	0.56	0.10	0.01	-0.08	0.08	-0.13	0.29	-0.09	0.54	0.00	-0.01	-0.08	0.08	0.20	-0.10
IPIP-O	I have a vivid imagination	0.14	0.05	**0.66**	-0.07	-0.02	0.04	0.01	0.15	-0.01	**0.60**	0.10	-0.03	0.02	0.04	-0.15	0.17	-0.02	0.58	-0.03	0.00	0.02	0.04	0.19	-0.12
BFI-2-O	BFAS-O	0.01	0.08	0.32	0.42	0.00	-0.13	0.10	0.00	0.18	0.14	0.53	0.02	0.09	-0.17	-0.01	-0.03	0.12	0.20	0.03	**0.54**	0.12	-0.22	0.19	-0.07
Openness Inventory	I don't find literature especially interesting (R)	0.66	0.13	-0.08	0.20	0.07	-0.12	-0.05	0.71	0.08	-0.06	0.02	0.06	-0.04	-0.11	0.16	0.69	0.09	-0.08	0.06	0.06	-0.05	-0.09	-0.03	0.21
HEXACO-O	I would enjoy creating a work of art, such as a novel, a song, or a painting	0.48	0.00	0.39	-0.04	0.05	-0.02	-0.09	0.52	-0.13	0.40	-0.04	0.03	-0.07	0.01	0.02	0.53	-0.13	0.38	0.03	-0.06	-0.07	0.00	0.05	0.05
Openness Inventory	For me, there is nothing better than taking the time to think deeply about something	0.21	-0.16	0.22	0.43	-0.16	0.07	0.03	0.21	0.03	0.00	**0.59**	-0.13	0.01	0.03	-0.11	0.16	-0.03	0.07	-0.12	**0.71**	0.06	-0.05	0.12	-0.21
Openness Inventory	I think viewing art is a waste of time (R)	**0.71**	0.10	0.04	-0.05	0.11	-0.08	0.01	**0.76**	0.00	0.10	-0.18	0.09	0.03	-0.06	0.05	**0.74**	0.00	0.08	0.10	-0.08	0.03	-0.07	-0.12	0.09
FIFFM-O	I like to try new things	-0.01	0.05	0.17	-0.03	0.01	**0.64**	0.10	0.00	-0.07	0.24	-0.09	-0.01	0.12	**0.67**	0.06	0.02	-0.03	0.21	0.00	-0.16	0.08	**0.69**	0.03	0.11
FIFFM-O	I enjoy spending time in museums or art galleries	**0.79**	0.03	-0.07	0.07	0.08	0.02	-0.16	**0.86**	-0.07	-0.01	-0.10	0.06	-0.16	0.04	0.13	**0.85**	-0.03	-0.07	0.06	-0.10	-0.19	0.08	-0.03	0.22
BFAS-O	I believe in the importance of art	**0.71**	0.04	0.08	-0.11	0.09	0.00	-0.02	**0.76**	0.02	0.09	-0.14	0.09	-0.02	0.01	-0.08	**0.75**	0.02	0.07	0.09	-0.07	-0.02	0.01	-0.08	-0.03
BFI-2-O	I think poetry and plays are boring (R)	**0.77**	0.08	-0.02	0.06	0.04	0.01	-0.19	**0.82**	0.05	0.00	-0.04	0.03	-0.19	0.02	0.03	**0.77**	0.02	0.03	0.05	0.13	-0.17	-0.03	-0.16	0.00
BFAS-O	I like to solve complex problems	-0.15	0.31	0.11	**0.49**	-0.04	0.07	0.02	-0.16	0.40	0.00	0.48	-0.02	0.01	0.04	0.12	-0.19	0.34	0.06	-0.02	0.49	0.02	0.01	0.11	0.06
Openness Inventory	I learn a great deal from people with differing beliefs	0.12	-0.11	-0.11	0.09	0.04	0.42	**0.41**	0.12	-0.04	-0.15	0.06	0.05	0.43	0.41	-0.07	0.10	-0.05	-0.12	0.07	0.21	0.43	0.37	-0.09	-0.07
Openness Inventory	I'm happiest when conversations are practical rather than philosophical (R)	0.14	-0.02	0.12	0.37	0.29	-0.10	-0.01	0.15	0.02	0.01	0.41	0.30	-0.01	-0.11	0.07	0.09	-0.07	0.12	0.32	**0.56**	0.05	-0.24	0.05	-0.07
IPIP-O	I prefer to stick with things that I know (R)	0.10	0.14	0.10	0.08	0.32	0.39	-0.21	0.11	0.07	0.13	0.05	0.30	-0.22	0.41	0.08	0.08	0.02	0.21	0.33	0.12	-0.19	0.33	-0.04	-0.01

Scale	Item	F7.1	F7.2	F7.3	F7.4	F7.5	F7.6	F7.7	F8.1	F8.2	F8.3	F8.4	F8.5	F8.6	F8.7	F8.8	F9.1	F9.2	F9.3	F9.4	F9.5	F9.6	F9.7	F9.8	F9.9
BFI-2-O	I am inventive, find clever ways to do things	-0.13	0.27	**0.70**	-0.06	-0.15	0.14	-0.04	-0.13	0.15	**0.69**	0.06	-0.16	-0.03	0.16	-0.04	-0.10	0.14	**0.69**	-0.16	-0.07	-0.03	0.16	0.14	-0.03
Openness Inventory	I have no interest in learning new information (R)	0.01	0.19	-0.03	0.17	0.11	0.05	0.39	0.03	-0.04	0.11	-0.14	0.08	0.45	0.09	0.37	0.04	-0.03	0.10	0.08	-0.12	0.42	0.10	-0.09	**0.42**
HEXACO-O	I like people who have unconventional views	-0.05	-0.08	0.16	0.30	0.35	0.08	0.06	-0.06	0.08	-0.03	0.50	0.38	0.04	0.04	-0.12	-0.07	0.08	-0.05	0.38	0.35	0.03	0.04	**0.36**	-0.09
Openness Inventory	Tasks that require a lot of thinking confuse me easily	-0.01	0.64	-0.05	0.24	0.07	-0.04	0.07	-0.01	0.59	0.00	0.05	0.07	0.08	-0.04	0.22	-0.04	0.51	0.07	0.08	0.17	0.09	-0.09	-0.16	0.16
FIFFM-O	I tend to take an unconventional approach to things	-0.13	-0.13	0.42	0.38	0.26	0.12	-0.20	-0.14	-0.03	0.22	**0.62**	0.27	-0.23	0.09	-0.06	-0.12	0.01	0.15	0.26	0.27	-0.26	0.14	**0.59**	0.01
IPIP-O	I like to get lost in thought	-0.01	-0.18	0.46	0.13	0.07	-0.08	0.25	0.00	-0.17	0.34	0.29	0.07	0.26	-0.09	-0.09	0.03	-0.14	0.28	0.05	0.10	0.24	-0.05	0.34	-0.01
HEXACO-O	I think of myself as a somewhat eccentric person	0.00	-0.22	0.39	0.39	0.23	0.04	-0.20	-0.01	-0.08	0.16	**0.66**	0.24	-0.23	0.00	-0.11	0.01	-0.03	0.09	0.23	0.32	-0.26	0.06	**0.60**	-0.03
Openness Inventory	I always have difficulty applying new concepts (R)	0.06	**0.73**	0.06	-0.08	0.07	0.04	0.07	0.05	0.71	0.12	-0.16	0.08	0.06	0.03	0.00	0.05	0.65	0.15	0.09	-0.07	0.07	0.01	-0.19	-0.01
BFAS-O	I have difficulty imagining things (R)	0.12	0.25	0.52	-0.11	-0.10	-0.06	0.06	0.14	0.09	0.57	-0.10	-0.12	0.08	-0.03	0.02	0.14	0.03	**0.61**	-0.11	-0.03	0.11	-0.08	-0.09	-0.04
Openness Inventory	I like to analyze things instead of taking them at face value	-0.16	-0.06	0.16	0.46	0.02	-0.02	0.26	-0.17	-0.02	0.04	0.46	0.02	0.28	-0.04	0.12	-0.17	-0.03	0.04	0.02	0.38	0.26	-0.03	0.24	0.14
Openness Inventory	I don't find Classical Ballet interesting (R)	**0.77**	0.06	-0.12	0.10	-0.01	0.05	-0.27	**0.82**	0.05	-0.10	-0.02	-0.01	-0.28	0.05	0.05	**0.78**	0.05	-0.10	0.00	0.08	-0.27	0.04	-0.11	0.06
FIFFM-O	Every once in a while, I like to shake things up and try something different	-0.09	-0.06	0.21	-0.02	0.07	**0.51**	0.11	-0.09	-0.11	0.22	0.03	0.07	0.13	**0.52**	-0.04	-0.04	-0.02	0.12	0.06	-0.22	0.05	**0.62**	0.26	0.11
BFAS-O	I see beauty in things that others might not notice	0.34	-0.18	0.36	0.08	-0.14	0.03	0.00	0.36	-0.10	0.23	0.24	-0.13	0.00	0.01	-0.18	0.36	-0.09	0.20	-0.14	0.18	-0.01	0.03	0.18	-0.14
IPIP-O	I am attached to conventional ways (R)	-0.02	0.09	0.04	0.03	**0.65**	0.21	-0.03	-0.02	0.03	0.06	0.05	**0.63**	-0.03	0.23	0.05	-0.02	0.02	0.07	**0.65**	-0.03	-0.03	0.19	0.13	0.04

Scale	Item	F7.1	F7.2	F7.3	F7.4	F7.5	F7.6	F7.7	F8.1	F8.2	F8.3	F8.4	F8.5	F8.6	F8.7	F8.8	F9.1	F9.2	F9.3	F9.4	F9.5	F9.6	F9.7	F9.8	F9.9
FIFFM-O	I am tolerant of different lifestyles and cultures	0.03	-0.03	-0.07	-0.06	0.23	0.36	0.40	0.02	-0.01	-0.07	-0.07	0.24	0.42	0.35	-0.08	0.04	0.02	-0.10	0.25	-0.07	0.38	0.37	0.02	0.00
Openness Inventory	I am usually not very quick in my thinking, but have strengths in other areas (R)	0.08	**0.82**	0.06	-0.05	0.12	-0.07	-0.06	0.07	**0.84**	0.07	-0.10	0.14	-0.08	-0.09	-0.04	0.07	**0.79**	0.10	0.15	-0.06	-0.07	-0.09	-0.12	-0.03
Openness Inventory	I like to hear different people's views on political issues	0.06	-0.14	-0.15	0.39	-0.03	0.28	0.21	0.07	-0.09	-0.20	0.29	-0.02	0.22	0.27	0.15	0.02	-0.14	-0.12	0.00	0.47	0.24	0.19	-0.08	0.06
IPIP-O	I dislike changes (R)	0.03	0.15	0.02	0.04	0.20	**0.55**	-0.21	0.04	0.05	0.10	-0.04	0.18	-0.20	**0.58**	0.13	0.01	0.00	0.19	0.21	0.07	-0.18	**0.49**	-0.13	0.03
FIFFM-O	I'm a bit unconventional	-0.19	-0.21	0.42	0.40	0.24	-0.04	-0.04	-0.19	-0.18	0.26	**0.59**	0.24	-0.05	-0.05	0.03	-0.16	-0.12	0.17	0.22	0.21	-0.09	0.02	**0.60**	0.13
FIFFM-O	I am quite tolerant of alternative points of view	-0.03	0.00	-0.08	0.10	0.07	0.39	0.26	-0.04	0.05	-0.10	0.09	0.08	0.26	0.38	-0.03	-0.07	0.01	-0.04	0.10	0.24	0.28	0.32	-0.11	-0.09
HEXACO-O	I would be very bored by a book about the history of science and technology (R)	0.02	0.24	-0.19	**0.49**	-0.02	-0.01	0.09	0.06	0.01	-0.05	0.08	-0.06	0.14	0.03	**0.59**	0.07	0.06	-0.11	-0.08	-0.06	0.07	0.10	0.06	**0.71**
Openness Inventory	I am very quick at processing information	0.03	**0.71**	0.06	-0.07	-0.02	0.07	-0.02	0.01	**0.85**	0.01	-0.02	0.02	-0.05	0.03	-0.18	0.04	**0.86**	-0.03	0.01	-0.11	-0.09	0.09	0.02	-0.09
Openness Inventory	I have never really been interested in science (R)	-0.06	0.18	-0.05	0.40	0.03	-0.09	0.18	-0.03	-0.07	0.08	0.05	-0.01	0.24	-0.04	**0.55**	0.00	-0.02	-0.01	-0.03	-0.16	0.16	0.05	0.14	**0.70**
Openness Inventory	I regard philosophy as a disease of the idle (R)	-0.02	0.08	0.02	0.14	0.26	-0.19	0.41	-0.01	-0.06	0.07	-0.01	0.24	**0.46**	-0.17	0.22	-0.03	-0.10	0.11	0.25	0.08	**0.47**	-0.22	-0.07	0.19
Openness Inventory	I seldom seek new opportunities to extent my knowledge (R)	0.06	0.21	-0.03	0.19	0.15	-0.15	0.23	0.08	0.03	0.06	-0.05	0.12	0.27	-0.12	0.32	0.10	0.06	0.02	0.12	-0.11	0.24	-0.08	0.02	**0.40**
BFAS-O	I am quick to understand things	-0.02	0.67	0.00	0.07	-0.05	0.01	0.03	-0.05	**0.81**	-0.05	0.08	-0.01	0.00	-0.04	-0.09	-0.02	**0.81**	-0.09	-0.02	-0.01	-0.03	0.02	0.05	-0.01
Openness Inventory	Like most people I am open to listening to what others have to say	0.00	-0.08	-0.09	0.05	-0.16	0.29	**0.58**	0.00	-0.01	-0.12	0.00	-0.15	**0.60**	0.27	-0.07	-0.04	-0.07	-0.04	-0.13	0.30	**0.64**	0.20	-0.27	-0.15

Scale	Item	F7.1	F7.2	F7.3	F7.4	F7.5	F7.6	F7.7	F8.1	F8.2	F8.3	F8.4	F8.5	F8.6	F8.7	F8.8	F9.1	F9.2	F9.3	F9.4	F9.5	F9.6	F9.7	F9.8	F9.9
FIFFM-O	I rarely do things just because it's something different to do (R)	-0.01	0.08	0.18	-0.12	0.16	0.38	0.02	0.00	-0.08	0.28	-0.18	0.13	0.04	0.42	0.07	0.01	-0.08	0.29	0.15	-0.17	0.04	0.39	-0.05	0.06
BFAS-O	I learn things slowly (R)	0.07	**0.76**	0.07	-0.11	0.02	-0.07	0.00	0.06	**0.85**	0.06	-0.10	0.05	-0.02	-0.10	-0.14	0.07	**0.82**	0.05	0.04	-0.11	-0.04	-0.07	-0.07	-0.09
Openness Inventory	I have to read complex information several times before I fully understand it	0.07	0.69	-0.04	0.09	0.06	-0.04	-0.12	0.06	**0.78**	-0.07	0.06	0.09	-0.16	-0.07	-0.03	0.04	**0.73**	-0.03	0.10	0.11	-0.15	-0.08	-0.08	-0.04
HEXACO-O	I've never really enjoyed looking through an encyclopedia (R)	0.24	0.13	-0.15	0.45	-0.09	-0.14	0.01	0.29	-0.07	-0.04	0.09	-0.12	0.04	-0.10	**0.52**	0.28	-0.05	-0.06	-0.13	0.07	0.01	-0.07	-0.02	**0.56**
FIFFM-O	I don't care much for traveling (R)	0.11	0.08	-0.04	-0.11	0.08	**0.45**	0.03	0.12	0.02	0.04	-0.17	0.07	0.04	**0.47**	0.01	0.11	0.01	0.06	0.09	-0.08	0.04	**0.44**	-0.14	-0.01
Openness Inventory	I believe in-depth discussions are a complete waste of time (R)	-0.09	0.10	-0.01	0.01	0.24	-0.14	**0.57**	-0.09	0.00	0.04	-0.11	0.23	**0.62**	-0.12	0.11	-0.10	-0.05	0.09	0.24	0.04	**0.63**	-0.17	-0.14	0.08
Openness Inventory	I often need people to explain things to me (R)	0.04	**0.75**	-0.09	0.03	0.02	-0.09	0.03	0.04	0.68	0.00	-0.17	0.03	0.03	-0.09	0.16	0.03	0.62	0.06	0.04	-0.04	0.05	-0.12	-0.26	0.12
FIFFM-O	I usually disagree with the "status quo"	-0.08	-0.21	0.27	0.32	0.30	-0.03	-0.10	-0.08	-0.17	0.13	0.47	0.30	-0.11	-0.04	0.02	-0.05	-0.10	0.03	0.28	0.11	-0.16	0.04	**0.55**	0.14
BFAS-O	I seldom daydream (R)	0.07	-0.11	0.32	0.07	0.16	-0.22	0.16	0.08	-0.17	0.27	0.14	0.15	0.18	-0.21	0.01	0.12	-0.13	0.19	0.13	-0.06	0.15	-0.15	0.28	0.11
FIFFM-O	I'll try anything at least once	-0.11	-0.09	0.16	-0.04	0.07	**0.55**	-0.07	-0.13	-0.03	0.12	0.10	0.07	-0.08	**0.54**	-0.15	-0.09	0.03	0.05	0.07	-0.10	-0.13	**0.60**	0.24	-0.06
IPIP-O	I experience my emotions intensely	0.22	-0.23	0.36	-0.19	-0.01	0.03	0.15	0.20	-0.01	0.16	0.17	0.03	0.13	-0.03	**-0.51**	0.24	0.05	0.06	0.01	0.00	0.10	0.04	0.31	-0.38
IPIP-O	I believe in one true religion (R)	-0.12	0.02	-0.02	0.04	0.60	0.00	0.12	-0.13	0.04	-0.06	0.12	**0.60**	0.12	-0.01	-0.02	-0.10	0.08	-0.12	0.60	-0.08	0.08	0.03	0.27	0.07
FIFFM-O	The traditional family is essential to our society (R)	-0.01	-0.02	-0.01	-0.11	**0.83**	0.07	-0.04	-0.03	0.07	-0.09	0.09	**0.84**	-0.06	0.05	-0.20	-0.01	0.09	-0.13	**0.84**	-0.08	-0.07	0.05	0.27	-0.14
Openness Inventory	I understand that people can have different attitudes toward certain things than I do	-0.17	-0.08	-0.06	0.02	**-0.08**	0.17	0.62	-0.18	-0.07	-0.06	-0.03	**-0.07**	0.65	0.17	-0.02	-0.19	-0.10	-0.02	**-0.06**	0.14	0.66	0.13	-0.16	-0.04
FIFFM-O	I believe in strict standards of right and wrong (R)	-0.01	-0.02	-0.01	-0.07	**0.61**	0.16	-0.06	-0.01	-0.05	0.01	-0.02	**0.60**	-0.06	0.17	-0.01	-0.02	-0.07	0.03	**0.62**	-0.03	-0.04	0.11	0.06	-0.05
IPIP-O	I tend to vote for conservative political candidates (R)	0.08	-0.03	-0.02	-0.15	**0.68**	0.03	0.03	0.07	0.04	-0.07	0.01	**0.69**	0.01	0.02	-0.19	0.09	0.07	-0.13	**0.69**	-0.14	-0.01	0.04	0.22	-0.11

Scale	Item	F7.1	F7.2	F7.3	F7.4	F7.5	F7.6	F7.7	F8.1	F8.2	F8.3	F8.4	F8.5	F8.6	F8.7	F8.8	F9.1	F9.2	F9.3	F9.4	F9.5	F9.6	F9.7	F9.8	F9.9
FIFFM-O	I believe that there is a proper way to behave in almost any situation (R)	-0.01	-0.04	-0.01	0.04	**0.60**	0.09	-0.17	0.00	-0.07	-0.01	0.09	**0.59**	-0.18	0.10	0.04	-0.03	-0.11	0.03	**0.61**	0.09	-0.15	0.03	0.08	-0.04
IPIP-O	I experience very few emotional highs and lows (R)	0.17	-0.14	0.24	-0.25	**0.11**	-0.02	0.19	0.16	0.03	0.11	0.03	**0.14**	0.18	-0.06	-0.43	0.19	0.05	0.04	**0.13**	-0.06	0.17	-0.02	0.17	-0.34
IPIP-O	I seldom get emotional (R)	0.25	-0.04	0.21	-0.31	**0.11**	-0.07	0.16	0.24	0.07	0.13	-0.09	**0.14**	0.15	-0.10	-0.38	0.28	0.09	0.06	**0.13**	-0.15	0.14	-0.06	0.10	-0.29
Openness Inventory	In a quiz I like to know what the answers are if I get the questions wrong.	-0.12	0.05	0.01	0.02	**-0.02**	-0.06	0.45	-0.12	0.02	0.02	-0.04	**-0.02**	0.47	-0.06	0.03	-0.10	0.04	-0.02	**-0.03**	-0.06	0.44	-0.02	0.01	0.10
IPIP-O	I like to stand during the national anthem (R)	-0.02	-0.19	0.05	0.05	**0.60**	-0.08	-0.11	-0.02	-0.17	-0.01	0.19	**0.60**	-0.12	-0.08	-0.04	0.00	-0.13	-0.07	**0.59**	-0.04	-0.14	-0.05	0.35	0.02

Table 3

Example Item Content of Factors Derived Through Bass-Ackwards Approach with Highest Correlated Items Per Factor Bolded (Continued)

Scale	Item	F10.1	F10.2	F10.3	F10.4	F10.5	F10.6	F10.7	F10.8	F10.9	F10.10
IPIP-O	I am not interested in abstract ideas (R)	0.08	-0.02	0.13	0.36	0.11	0.01	0.20	0.16	0.04	-0.13
Openness Inventory	I like coming up with imaginative plans	0.07	0.00	**0.71**	0.16	-0.03	0.01	-0.10	0.09	-0.08	0.10
Openness Inventory	I am always interested in learning more about philosophy	0.21	-0.07	-0.04	**0.78**	-0.05	0.06	-0.04	-0.05	-0.09	0.03
FIFFM-O	My friends think of me as somewhat philosophical	0.14	0.06	0.12	**0.60**	-0.05	-0.09	0.04	-0.09	-0.03	0.06
BFI-2-O	I avoid intellectual philosophical discussions (R)	-0.02	0.07	0.05	**0.62**	0.04	-0.06	0.18	-0.04	-0.02	-0.03
Openness Inventory	I continually strive to uncover information about topics that are new to me	0.01	0.07	0.02	0.16	-0.05	0.33	0.28	0.03	0.01	0.18
BFI-2-O	I have little creativity (R)	0.19	-0.01	**0.86**	-0.11	0.02	-0.04	-0.08	0.03	-0.09	-0.01
Openness Inventory	I don't like trying new things and would rather stick with what I know (R)	-0.02	0.06	0.17	-0.01	0.04	-0.09	0.16	**0.62**	0.08	-0.04
Openness Inventory	I see the beauty in art when others do not	0.69	-0.04	0.29	0.05	-0.02	-0.08	-0.17	-0.02	0.03	0.06
Openness Inventory	I can develop inventive ideas of high quality	-0.04	0.12	**0.78**	0.05	-0.03	0.01	-0.06	0.06	-0.23	0.12
Openness Inventory	If I see artwork I like in a gallery, I will visit it more than once to fully appreciate it	0.70	-0.05	0.11	0.03	-0.05	-0.02	0.03	0.03	-0.07	0.00
BFAS-O	I need a creative outlet	0.26	-0.09	0.58	0.00	0.04	-0.07	-0.09	0.03	0.08	0.11
IPIP-O	I have a vivid imagination	0.14	-0.03	**0.63**	0.00	0.01	0.00	-0.08	-0.01	0.10	0.09
BFI-2-O	BFAS-O	-0.07	0.12	0.16	0.60	0.00	0.08	-0.04	-0.16	0.08	-0.02
Openness Inventory	I don't find literature especially interesting (R)	0.65	0.09	-0.06	0.05	0.08	-0.06	0.20	-0.09	-0.01	-0.08
HEXACO-O	I would enjoy creating a work of art, such as a novel, a song, or a painting	0.53	-0.14	0.48	-0.10	0.10	-0.05	0.04	-0.06	-0.07	-0.01

Scale	Item	F10.1	F10.2	F10.3	F10.4	F10.5	F10.6	F10.7	F10.8	F10.9	F10.10
Openness Inventory	For me, there is nothing better than taking the time to think deeply about something	0.11	-0.03	0.03	**0.73**	-0.15	0.16	-0.25	-0.04	0.09	0.03
Openness Inventory	I think viewing art is a waste of time (R)	**0.71**	-0.01	0.14	-0.14	0.14	0.03	0.10	-0.09	-0.01	-0.16
FIFFM-O	I like to try new things	**-0.01**	-0.02	0.14	-0.17	-0.06	0.14	0.13	0.64	0.06	0.26
FIFFM-O	I enjoy spending time in museums or art galleries	**0.86**	-0.04	0.04	-0.17	0.14	-0.09	0.16	-0.03	-0.13	0.02
BFAS-O	I believe in the importance of art	**0.70**	0.02	0.12	-0.12	0.13	0.03	-0.03	-0.03	0.08	-0.09
BFI-2-O	I think poetry and plays are boring (R)	**0.73**	0.02	0.04	0.08	0.05	-0.07	-0.06	0.02	-0.03	-0.14
BFAS-O	I like to solve complex problems	**-0.19**	0.35	0.01	0.55	-0.06	0.04	0.03	0.04	-0.05	0.07
Openness Inventory	I learn a great deal from people with differing beliefs	**0.12**	-0.05	-0.05	0.11	0.10	0.59	-0.07	0.16	-0.04	0.02
Openness Inventory	I'm happiest when conversations are practical rather than philosophical ®	**0.00**	-0.06	-0.03	0.65	0.20	-0.02	-0.04	0.02	0.10	-0.18
IPIP-O	I prefer to stick with things that I know (R)	**-0.01**	0.04	0.00	0.19	0.16	-0.19	-0.01	0.60	0.10	0.03
BFI-2-O	I am inventive, find clever ways to do things	**-0.03**	0.12	0.83	-0.10	-0.06	0.02	-0.05	0.01	-0.17	0.15
Openness Inventory	I have no interest in learning new information (R)	**0.00**	-0.03	0.01	-0.09	0.02	0.22	0.54	0.17	0.00	-0.13
HEXACO-O	I like people who have unconventional views	**-0.06**	0.08	-0.02	0.39	0.38	0.08	-0.08	-0.04	0.09	0.22
Openness Inventory	Tasks that require a lot of thinking confuse me easily	**-0.06**	0.53	-0.02	0.21	0.01	0.00	0.19	0.07	-0.05	-0.18
FIFFM-O	I tend to take an unconventional approach to things	**-0.05**	0.00	0.27	0.33	0.33	-0.16	-0.05	-0.03	-0.07	0.48
IPIP-O	I like to get lost in thought	**-0.09**	-0.14	0.19	0.20	0.01	0.05	0.14	0.00	0.37	0.11
HEXACO-O	I think of myself as a somewhat eccentric person	**0.02**	-0.04	0.16	0.40	0.26	-0.19	-0.07	-0.06	0.06	0.44
Openness Inventory	I always have difficulty applying new concepts (R)	**0.03**	0.66	0.12	-0.07	0.06	0.03	0.02	0.08	0.04	-0.14
BFAS-O	I have difficulty imagining things (R)	**0.10**	0.03	0.60	-0.03	-0.11	0.02	0.02	0.01	0.02	-0.17
Openness Inventory	I like to analyze things instead of taking them at face value	**-0.17**	-0.03	0.04	0.43	0.02	0.21	0.18	-0.09	0.01	0.09
Openness Inventory	I don't find Classical Ballet interesting (R)	**0.74**	0.06	-0.09	0.05	0.00	-0.16	-0.02	0.05	-0.03	-0.04
FIFFM-O	Every once in a while, I like to shake things up and try something different	**-0.07**	-0.02	0.09	-0.20	0.03	0.08	0.14	0.48	0.16	0.40
Scale	Item	**F10.1**	F10.2	F10.3	F10.4	F10.5	F10.6	F10.7	F10.8	F10.9	F10.10
BFAS-O	I see beauty in things that others might not notice	**0.31**	-0.09	0.24	0.18	-0.10	0.04	-0.14	-0.06	0.16	0.11
IPIP-O	I am attached to conventional ways (R)	**-0.05**	0.03	-0.01	0.03	0.56	-0.07	0.09	0.32	0.07	0.08
FIFFM-O	I am tolerant of different lifestyles and cultures	**0.07**	0.01	-0.02	-0.15	0.29	0.47	0.04	0.14	0.01	0.10

Scale	Item	F10.1	F10.2	F10.3	F10.4	F10.5	F10.6	F10.7	F10.8	F10.9	F10.10
Openness Inventory	I am usually not very quick in my thinking, but have strengths in other areas (R)	**0.03**	0.81	0.04	-0.01	0.10	-0.15	0.00	0.04	0.11	-0.12
Openness Inventory	I like to hear different people's views on political issues	**0.04**	-0.14	-0.13	0.43	-0.03	0.37	0.02	0.14	-0.15	-0.03
IPIP-O	I dislike changes (R)	**-0.02**	0.01	0.05	0.08	0.08	-0.08	-0.03	0.65	-0.09	0.07
FIFFM-O	I'm a bit unconventional	**-0.12**	-0.14	0.26	0.29	0.28	-0.11	0.14	-0.12	-0.02	0.40
FIFFM-O	I am quite tolerant of alternative points of view	**0.00**	0.00	0.05	0.15	0.14	0.47	-0.13	0.14	-0.18	0.01
HEXACO-O	I would be very bored by a book about the history of science and technology (R)	**0.11**	0.06	-0.11	-0.01	-0.07	-0.04	0.70	0.06	-0.28	0.09
Openness Inventory	I am very quick at processing information	**0.05**	0.86	0.02	-0.11	0.05	-0.04	-0.10	-0.02	0.09	0.12
Openness Inventory	I have never really been interested in science (R)	**0.02**	-0.02	-0.01	-0.09	-0.02	-0.03	0.75	0.02	-0.18	0.09
Openness Inventory	I regard philosophy as a disease of the idle (R)	**-0.05**	-0.09	0.06	0.10	0.22	0.28	0.33	-0.11	0.02	-0.28
Openness Inventory	I seldom seek new opportunities to extent my knowledge (R)	**0.00**	0.07	-0.12	-0.02	0.02	-0.04	0.54	0.09	0.16	-0.10
BFAS-O	I am quick to understand things	**-0.03**	0.82	-0.08	0.02	-0.01	-0.04	0.00	-0.03	0.12	0.10
Openness Inventory	Like most people I am open to listening to what others have to say	**-0.04**	-0.08	-0.01	0.19	-0.11	0.74	-0.11	0.06	-0.01	-0.20
FIFFM-O	I rarely do things just because it's something different to do (R)	**-0.07**	-0.07	0.15	-0.14	0.03	-0.02	0.12	0.53	0.12	0.04
BFAS-O	I learn things slowly (R)	**0.04**	0.83	0.02	-0.08	0.03	-0.09	-0.05	-0.03	0.17	-0.05
Openness Inventory	I have to read complex information several times before I fully understand it	**0.04**	0.74	-0.05	0.13	0.08	-0.13	-0.07	-0.02	0.00	-0.04
HEXACO-O	I've never really enjoyed looking through an encyclopedia (R)	**0.27**	-0.05	-0.09	0.11	-0.14	-0.09	0.54	-0.03	-0.21	-0.05
FIFFM-O	I don't care much for traveling (R)	**0.04**	0.03	-0.07	-0.09	-0.02	0.07	0.01	0.53	0.12	0.03
Openness Inventory	I believe in-depth discussions are a complete waste of time (R)	**-0.15**	-0.04	0.02	0.04	0.20	0.42	0.25	-0.08	0.13	-0.32
Openness Inventory	I often need people to explain things to me (R)	**0.05**	0.63	0.05	-0.04	0.03	-0.01	0.13	-0.03	-0.12	-0.22
FIFFM-O	I usually disagree with the "status quo"	**-0.05**	-0.11	0.07	0.21	0.30	-0.20	0.15	-0.04	0.07	0.38
BFAS-O	I seldom daydream (R)	**-0.03**	-0.12	0.04	0.07	0.05	-0.14	0.29	0.01	0.42	0.03
Scale	Item	**F10.1**	F10.2	F10.3	F10.4	F10.5	F10.6	F10.7	F10.8	F10.9	F10.10
FIFFM-O	I'll try anything at least once	**-0.11**	0.03	0.03	-0.09	0.04	0.00	-0.09	0.48	0.12	0.42
IPIP-O	I experience my emotions intensely	**0.03**	0.09	-0.12	0.10	-0.08	-0.02	-0.25	0.10	0.80	0.19
IPIP-O	I believe in one true religion (R)	**-0.06**	0.07	-0.06	-0.06	0.62	0.05	0.13	-0.04	0.02	0.15
FIFFM-O	The traditional family is essential to our society (R)	**0.01**	0.09	-0.08	-0.06	0.83	-0.05	-0.10	0.04	0.11	0.15
Openness Inventory	I understand that people can have different attitudes toward certain things than I do	**-0.14**	-0.11	0.07	0.04	0.00	0.71	0.02	-0.08	-0.08	-0.14

Scale	Item	F10.1	F10.2	F10.3	F10.4	F10.5	F10.6	F10.7	F10.8	F10.9	F10.10
FIFFM-O	I believe in strict standards of right and wrong (R)	**0.01**	-0.07	0.05	-0.03	0.59	0.00	-0.04	0.16	-0.06	0.02
IPIP-O	I tend to vote for conservative political candidates (R)	**0.15**	0.06	-0.01	-0.17	0.75	0.05	-0.09	-0.09	0.03	0.13
FIFFM-O	I believe that there is a proper way to behave in almost any situation (R)	**-0.01**	-0.10	0.01	0.11	0.55	-0.12	-0.05	0.15	-0.08	0.00
IPIP-O	I experience very few emotional highs and lows (R)	**-0.02**	0.09	-0.15	0.03	0.02	0.01	-0.18	0.11	0.74	0.04
IPIP-O	I seldom get emotional (R)	**0.05**	0.14	-0.17	-0.06	-0.01	-0.07	-0.12	0.14	0.77	-0.04
Openness Inventory	In a quiz I like to know what the answers are if I get the questions wrong.	**-0.10**	0.04	0.01	-0.07	0.01	0.33	0.20	-0.12	0.08	-0.06
IPIP-O	I like to stand during the national anthem (R)	**0.03**	-0.14	-0.02	0.01	0.61	-0.16	0.04	-0.07	0.02	0.18

Table 4

Factor Score Correlations with Openness Scales with Highest Correlated Facets Per Factor Bolded

		F1.1	F2.1	F2.2	F3.1	F3.2	F3.3	F4.1	F4.2	F4.3	F4.4	F5.1	F5.2	F5.3	F5.4	F5.5	F6.1	F6.2	F6.3	F6.4	F6.5	F6.6
BFI-2-O		0.83	0.76	0.68	0.82	0.64	0.45	0.71	0.51	0.81	0.39	0.51	0.72	0.78	0.54	0.3	0.5	0.83	0.55	0.68	0.3	0.3
	Intellectual Curiosity	0.7	0.62	0.61	0.65	**0.59**	0.44	0.6	0.51	0.6	0.4	0.47	0.51	0.6	0.6	0.29	0.46	**0.65**	0.58	0.46	0.27	**0.44**
	Aesthetic Sensitivity	0.65	**0.69**	0.4	0.7	0.37	0.46	0.7	0.28	0.52	0.4	0.29	**0.76**	0.46	0.42	0.36	0.27	0.53	0.41	**0.76**	0.36	0.27
	Creative Imagination	0.65	0.54	**0.62**	0.64	0.58	0.23	0.45	0.44	**0.79**	0.19	0.45	0.49	**0.77**	0.33	0.11	0.46	**0.78**	0.37	0.45	0.12	0.09
BFAS-O		0.86	0.71	0.84	0.78	0.81	0.45	0.75	0.73	0.69	0.38	0.73	0.69	0.66	0.64	0.26	0.72	0.71	0.64	0.66	0.25	0.33
	Intellect	0.67	0.39	**0.9**	0.46	**0.91**	0.3	0.45	**0.9**	0.45	0.26	**0.9**	0.33	0.47	0.54	0.14	**0.9**	0.47	0.54	0.31	0.13	0.19
	Openness	**0.74**	**0.81**	0.41	**0.85**	0.36	0.44	**0.8**	0.21	**0.69**	0.38	0.21	**0.85**	**0.63**	0.51	0.31	0.19	**0.72**	0.49	**0.83**	0.3	**0.37**
FIFFM-O		0.84	0.87	0.53	0.78	0.54	0.85	0.72	0.42	0.71	0.82	0.35	0.59	0.72	0.76	0.72	0.36	0.7	0.79	0.59	0.73	0.07
	Intellectance	**0.81**	**0.81**	0.55	**0.83**	0.52	0.54	**0.87**	0.43	0.58	0.48	0.4	**0.81**	0.54	**0.72**	0.36	0.38	0.6	**0.7**	**0.81**	0.35	0.31
	Novel Experience Seeking	0.7	0.67	0.53	0.64	0.53	0.61	0.56	0.43	**0.62**	0.58	0.34	0.37	**0.66**	**0.74**	0.45	0.37	0.6	**0.79**	0.38	0.46	-0.11
	Non-Traditionalism	0.53	0.62	0.22	0.46	0.25	**0.82**	0.37	0.15	0.52	**0.84**	0.11	0.33	0.52	0.38	**0.84**	0.12	0.52	0.4	0.3	**0.85**	0.08
HEXACO-O		0.83	0.81	0.6	0.81	0.58	0.61	0.83	0.49	0.62	0.55	0.44	0.73	0.59	0.76	0.42	0.43	0.64	0.75	0.72	0.41	0.32
	Aesthetic Appreciation	0.63	0.65	0.41	0.69	0.37	0.38	**0.73**	0.3	0.46	0.32	0.28	0.71	0.41	0.55	0.22	0.27	0.46	0.54	**0.73**	0.22	0.21
	Inquisitiveness	0.58	0.48	0.56	0.5	0.55	0.35	0.57	**0.54**	0.31	0.31	**0.49**	0.41	0.32	0.65	0.17	**0.48**	0.34	0.64	0.41	0.16	0.24
	Creativity	0.58	0.63	0.33	0.66	0.29	0.35	0.6	0.17	0.58	0.3	0.18	0.67	0.53	0.34	0.26	0.17	0.59	0.35	0.66	0.27	0.19
	Unconventionality	0.62	0.67	0.34	0.59	0.35	**0.69**	0.51	0.24	0.57	**0.68**	0.19	0.44	0.57	0.51	**0.62**	0.19	0.6	0.51	0.4	**0.62**	0.27
IPIP-O		0.69	0.79	0.32	0.69	0.32	0.8	0.6	0.19	0.66	0.79	0.16	0.6	0.63	0.47	0.77	0.16	0.66	0.49	0.57	0.77	0.21
	Imagination	0.63	0.68	0.37	**0.71**	0.33	0.4	0.57	0.17	**0.74**	0.36	0.15	0.59	**0.71**	0.41	0.29	0.14	**0.76**	0.42	0.54	0.29	0.28
	Emotionality	0.25	0.39	-0.02	0.37	-0.05	0.24	0.33	-0.14	0.3	0.22	-0.13	0.43	0.25	0.11	0.23	-0.15	0.31	0.1	0.41	0.23	0.19
	Adventurousness	0.59	0.56	0.45	0.46	0.48	**0.7**	0.4	0.42	0.49	**0.7**	0.37	0.28	0.51	0.51	**0.64**	0.39	0.45	0.56	0.3	**0.66**	-0.19
	Intellect	0.72	0.68	0.55	0.66	0.55	0.58	0.64	0.47	0.57	0.54	0.43	0.56	0.56	0.61	0.44	0.42	0.6	0.6	0.53	0.43	**0.32**
	Liberalism	0.26	0.4	-0.04	0.21	0	**0.71**	0.21	-0.04	0.18	**0.73**	-0.05	0.22	0.17	0.15	**0.8**	-0.06	0.2	0.14	0.2	**0.79**	0.18
Openness Inventory		0.96	0.84	0.85	0.86	0.84	0.65	0.84	0.75	0.73	0.58	0.71	0.71	0.73	0.84	0.43	0.7	0.76	0.84	0.68	0.42	0.33
	Intellectual Efficiency	0.53	0.21	**0.85**	0.26	**0.87**	0.24	0.28	**0.91**	0.28	0.22	**0.94**	0.18	0.3	0.39	0.13	**0.94**	0.29	0.39	0.16	0.13	0.09
		F1.1	F2.1	F2.2	F3.1	F3.2	F3.3	F4.1	F4.2	F4.3	F4.4	F5.1	F5.2	F5.3	F5.4	F5.5	F6.1	F6.2	F6.3	F6.4	F6.5	F6.6

Ingenuity	**0.78**	0.62	**0.79**	0.7	**0.77**	0.35	0.52	**0.64**	**0.85**	0.3	**0.61**	0.47	**0.86**	0.53	0.18	**0.62**	**0.85**	0.58	0.43	0.19	0.08
Curiosity	**0.79**	0.68	**0.72**	0.68	**0.71**	0.57	0.69	**0.65**	0.57	0.52	**0.59**	0.5	0.58	**0.81**	0.36	**0.58**	0.61	**0.8**	0.46	0.34	**0.4**
Aesthetics	0.74	**0.79**	0.45	**0.83**	0.4	0.45	**0.87**	0.3	0.55	0.38	0.31	**0.91**	0.48	0.57	0.3	0.29	0.55	0.55	**0.93**	0.29	0.26
Tolerance	0.6	0.66	0.33	0.55	0.35	**0.74**	0.62	0.31	0.35	**0.72**	0.22	0.43	0.36	**0.73**	**0.62**	0.22	0.36	**0.72**	0.44	**0.61**	0.21
Depth	**0.77**	**0.8**	0.49	**0.8**	0.46	0.56	**0.8**	0.36	0.6	0.5	0.3	**0.71**	0.58	**0.74**	0.37	0.28	0.65	**0.72**	0.67	0.35	**0.47**

Table 4

Factor Score Correlations with Openness Scales with Highest Correlated Facets Per Factor Bolded (Continued)

		F7.1	F7.2	F7.3	F7.4	F7.5	F7.6	F7.7	F8.1	F8.2	F8.3	F8.4	F8.5	F8.6	F8.7	F8.8	F9.1	F9.2	F9.3	F9.4	F9.5	F9.6	F9.7	F9.8	F9.9
BFI-2-O		0.65	0.42	0.82	0.6	0.29	0.37	0.44	0.69	0.45	0.83	0.64	0.27	0.5	0.35	0.35	0.66	0.46	0.85	0.29	0.6	0.45	0.33	0.35	0.41
	Intellectual Curiosity	0.44	0.37	0.58	**0.74**	0.29	0.28	0.4	0.5	**0.44**	0.52	**0.74**	0.24	0.47	0.28	0.41	0.44	**0.44**	0.57	0.28	**0.73**	0.4	0.26	0.33	0.47
	Aesthetic Sensitivity	**0.75**	0.22	0.53	0.4	0.36	0.25	0.4	**0.75**	0.24	0.53	0.42	0.35	0.43	0.23	0.21	**0.74**	0.24	0.53	0.36	0.41	0.39	0.23	0.22	0.27
	Creative Imagination	0.41	**0.42**	**0.81**	0.36	0.1	0.34	0.29	0.44	0.41	**0.87**	0.43	0.1	0.34	0.31	0.24	0.44	0.42	**0.87**	0.1	0.37	0.32	0.3	0.29	0.28
BFAS-O		0.66	0.65	0.67	0.66	0.23	0.42	0.51	0.7	0.72	0.67	0.66	0.2	0.57	0.42	0.39	0.66	0.75	0.7	0.22	0.63	0.51	0.41	0.35	0.47
	Intellect	0.31	**0.87**	0.4	0.61	0.1	0.38	0.3	0.37	**0.91**	0.45	0.49	0.08	0.36	0.39	**0.54**	0.3	**0.92**	0.55	0.16	0.58	0.27	0.36	0.06	**0.57**
	Openness	**0.81**	0.11	**0.73**	0.44	0.29	0.29	**0.57**	**0.82**	0.17	**0.65**	0.59	0.26	**0.6**	0.27	0.04	**0.84**	0.22	**0.59**	0.21	0.42	**0.59**	0.3	**0.56**	0.15
FIFFM-O		0.61	0.25	0.61	0.65	0.65	0.73	0.48	0.65	0.32	0.54	0.69	0.61	0.54	0.73	0.3	0.62	0.34	0.55	0.62	0.62	0.48	0.74	0.43	0.4
	Intellectance	**0.82**	0.28	0.52	**0.69**	0.31	0.47	**0.51**	**0.85**	0.35	0.46	**0.68**	0.28	**0.56**	0.47	0.36	**0.82**	0.37	0.47	0.29	**0.64**	**0.49**	0.48	0.37	0.45
	Novel Experience Seeking	0.43	0.28	0.5	0.52	0.33	**0.85**	0.47	0.46	0.33	0.46	0.55	0.3	0.52	**0.84**	0.25	0.44	0.35	0.48	0.33	0.51	0.47	**0.86**	0.3	0.32
	Non-Traditionalism	0.3	0.06	0.45	0.41	**0.85**	0.38	0.21	0.33	0.09	0.39	0.48	**0.82**	0.25	0.37	0.15	0.32	0.12	0.37	**0.79**	0.37	0.22	0.37	**0.4**	0.21
HEXACO-O		0.73	0.32	0.54	0.79	0.39	0.5	0.46	0.77	0.37	0.49	0.74	0.35	0.53	0.5	0.5	0.73	0.39	0.51	0.36	0.69	0.44	0.51	0.4	0.6
	Aesthetic Appreciation	**0.73**	0.18	0.41	0.53	0.19	0.36	0.35	**0.75**	0.24	0.34	0.54	0.16	0.4	0.36	0.24	**0.72**	0.26	0.35	0.17	0.52	0.34	0.37	0.29	0.31
	Inquisitiveness	0.43	0.4	0.22	**0.69**	0.12	0.41	0.32	0.48	0.4	0.26	0.49	0.1	0.38	0.42	**0.69**	0.41	0.4	0.32	0.15	0.54	0.27	0.42	0.11	**0.75**
	Creativity	0.64	0.11	**0.6**	0.33	0.26	0.24	0.33	0.64	0.12	**0.59**	0.41	0.25	0.36	0.22	0.12	0.65	0.14	0.55	0.23	0.31	0.34	0.23	0.35	0.19
	Unconventionality	0.4	0.1	0.53	0.57	**0.62**	0.35	0.34	0.44	0.19	0.41	**0.67**	**0.58**	0.4	0.35	0.15	0.43	0.23	0.39	**0.54**	0.52	0.36	0.36	**0.53**	0.24
IPIP-O		0.57	0.09	0.64	0.4	0.76	0.41	0.47	0.59	0.14	0.57	0.54	0.73	0.5	0.39	0.03	0.6	0.19	0.52	0.68	0.37	0.5	0.4	0.52	0.13
	Imagination	0.52	0.07	**0.77**	0.41	0.29	0.28	0.43	0.54	0.12	**0.7**	0.58	0.26	0.47	0.26	0.03	0.57	0.18	**0.63**	0.19	0.36	0.48	0.29	**0.61**	0.13
	Emotionality	0.4	-0.16	0.38	-0.03	0.23	0.04	0.36	0.38	-0.09	0.26	0.21	0.21	0.36	0.02	-0.42	0.45	-0.03	0.15	0.11	-0.02	0.42	0.06	**0.49**	-0.34
	Adventurousness	0.33	0.33	0.35	0.45	**0.58**	**0.66**	0.17	0.36	0.34	0.37	0.39	**0.57**	0.21	**0.65**	0.37	0.3	0.31	0.46	**0.65**	0.5	0.14	**0.62**	0	0.37
	Intellect	0.53	0.34	0.53	0.63	0.42	0.39	0.45	0.57	0.37	0.53	0.59	0.4	0.5	0.39	**0.43**	0.52	0.36	**0.59**	0.44	**0.62**	0.43	0.36	0.2	**0.48**
	Liberalism	0.2	-0.07	0.18	0.12	**0.82**	0.08	0.22	0.2	-0.06	0.14	0.17	**0.82**	0.22	0.08	0	0.23	-0.02	0.08	**0.75**	0.04	0.23	0.09	0.3	0.05
Openness Inventory		0.7	0.61	0.67	0.79	0.37	0.62	0.64	0.75	0.67	0.66	0.75	0.33	0.7	0.62	0.51	0.69	0.68	0.73	0.39	0.79	0.61	0.6	0.27	0.58
	Intellectual Efficiency	0.17	**0.94**	0.23	0.45	0.1	0.3	0.19	0.22	**0.95**	0.35	0.27	0.11	0.23	0.31	**0.57**	0.15	**0.94**	0.46	0.19	0.42	0.15	0.27	-0.13	**0.57**
	Ingenuity	0.41	**0.56**	**0.82**	0.58	0.15	**0.52**	0.34	0.46	**0.58**	**0.86**	0.6	0.13	0.4	**0.51**	0.39	0.42	**0.58**	**0.91**	0.17	0.6	0.35	**0.49**	0.26	0.43

Curiosity	0.48	**0.49**	0.51	**0.76**	0.29	**0.53**	**0.63**	0.54	**0.52**	0.53	**0.65**	0.27	**0.69**	**0.53**	**0.62**	0.48	**0.53**	0.57	0.3	**0.63**	**0.61**	**0.54**	0.3	**0.7**
Aesthetics	**0.93**	0.2	0.53	0.51	0.27	0.36	0.44	**0.93**	0.26	0.47	0.55	0.25	0.48	0.35	0.21	**0.92**	0.27	0.47	0.25	0.51	0.43	0.36	0.32	0.3
Tolerance	0.5	0.14	0.27	0.46	**0.52**	**0.61**	**0.67**	0.52	0.22	0.17	0.5	**0.49**	**0.69**	**0.61**	0.14	0.48	0.22	0.23	**0.54**	0.54	**0.64**	**0.6**	0.15	0.19
Depth	0.68	0.17	0.58	**0.72**	0.34	0.41	**0.62**	0.72	0.27	0.45	**0.8**	0.28	**0.67**	0.41	0.23	0.67	0.27	0.49	0.32	**0.79**	**0.61**	0.39	0.36	0.31

Table 4

Factor Score Correlations with Openness Scales with Highest Correlated Facets Per Factor Bolded (Continued)

		F10.1	F10.2	F10.3	F10.4	F10.5	F10.6	F10.7	F10.8	F10.9	F10.10
BFI-2-O		0.64	0.4	0.85	0.71	0.26	0.37	0.59	0.42	0.43	0.09
	Intellectual Curiosity	0.44	0.39	0.57	**0.81**	0.25	0.35	**0.58**	0.33	0.29	0.12
	Aesthetic Sensitivity	**0.72**	0.19	0.54	0.51	0.33	0.3	0.44	0.34	0.43	-0.04
	Creative Imagination	0.42	0.38	**0.88**	0.46	0.09	0.27	0.43	0.34	0.31	0.12
BFAS-O		0.66	0.68	0.71	0.71	0.18	0.47	0.66	0.45	0.41	0.17
	Intellect	0.34	**0.9**	0.5	0.58	0.07	0.32	0.56	0.43	0.03	0.08
	Openness	**0.77**	0.13	**0.67**	0.58	0.24	0.45	0.51	0.29	**0.71**	0.21
FIFFM-O		0.64	0.28	0.57	0.68	0.6	0.55	0.56	0.71	0.36	0.42
	Intellectance	**0.85**	0.31	0.5	**0.69**	0.26	**0.52**	**0.6**	0.44	0.35	**0.29**
	Novel Experience Seeking	0.46	0.31	0.49	0.5	0.28	**0.64**	0.45	**0.75**	0.25	**0.47**
	Non-Traditionalism	0.3	0.07	0.38	0.48	**0.82**	0.19	0.34	0.42	0.3	**0.26**
HEXACO-O		0.77	0.34	0.52	0.75	0.33	0.47	0.71	0.48	0.28	0.35
	Aesthetic Appreciation	**0.76**	0.21	0.38	0.56	0.15	0.37	0.42	0.34	0.29	0.23
	Inquisitiveness	0.49	**0.39**	0.28	0.53	0.07	0.35	**0.7**	0.42	-0.03	0.22
	Creativity	0.64	0.09	**0.6**	0.41	0.24	0.28	0.37	0.24	0.4	0.15
	Unconventionality	0.41	0.16	0.43	0.62	**0.59**	0.34	0.42	0.31	0.36	**0.38**
IPIP-O		0.52	0.1	0.55	0.55	0.7	0.37	0.45	0.48	0.68	0.2
	Imagination	0.49	0.09	**0.7**	0.52	0.24	0.36	0.45	0.25	**0.6**	**0.31**
	Emotionality	0.31	-0.11	0.23	0.16	0.17	0.22	0.07	0.06	**0.81**	0.11
	Adventurousness	0.34	0.3	0.37	0.51	**0.54**	0.23	0.35	**0.8**	0.11	0.06
	Intellect	0.51	0.32	0.55	**0.7**	0.38	0.38	**0.61**	**0.5**	0.33	0.01
	Liberalism	0.17	-0.07	0.12	0.16	**0.83**	0.13	0.21	0.12	0.28	0.09
Openness Inventory		0.71	0.63	0.73	0.82	0.33	0.66	0.73	0.62	0.31	0.19
	Intellectual Efficiency	0.2	**0.94**	0.39	0.39	0.09	0.19	0.48	0.4	-0.11	-0.08

	F10.1	F10.2	F10.3	F10.4	F10.5	F10.6	F10.7	F10.8	F10.9	F10.10
Ingenuity	0.43	**0.54**	**0.9**	0.64	0.13	0.39	0.52	**0.51**	0.21	0.2
Curiosity	0.49	**0.49**	0.56	**0.68**	0.24	**0.6**	**0.85**	**0.54**	0.27	0.24
Aesthetics	**0.94**	0.22	0.5	0.58	0.23	0.41	0.48	0.37	**0.44**	0.16
Tolerance	0.49	0.19	0.26	0.49	**0.52**	**0.78**	0.35	0.5	0.22	0.19
Depth	0.66	0.21	0.52	**0.84**	0.3	**0.6**	0.52	0.39	**0.44**	0.15

Table 5

Profile Similarity and Correlations of Factor Scores with Highest Profile Similarity Scores Between Factors Bolded

	F1.1	**F2.1**	**F2.2**	**F3.1**	**F3.2**	**F3.3**	**F4.1**	**F4.2**	**F4.3**	**F4.4**	**F5.1**	**F5.2**	**F5.3**	**F5.4**	**F5.5**	**F6.1**	**F6.2**	**F6.3**	**F6.4**	**F6.5**	**F6.6**	**F7.1**	**F7.2**	**F7.3**	**F7.4**	**F7.5**	**F7.6**	**F7.7**
F1.1		0.92	0.81	0.94	0.79	0.70	0.89	0.67	0.83	0.64	0.62	0.78	0.82	0.84	0.49	0.62	0.85	0.85	0.75	0.49	0.31	0.76	0.51	0.77	0.80	0.43	0.64	0.62
F2.1	**0.74**		0.53	0.97	0.50	0.78	0.92	0.35	0.80	0.72	0.30	0.86	0.76	0.79	0.61	0.28	0.82	0.78	0.84	0.61	0.34	0.85	0.17	0.76	0.70	0.57	0.58	0.66
F2.2	0.72	0.08		0.61	0.99	0.36	0.56	0.96	0.62	0.31	0.94	0.42	0.65	0.67	0.16	0.94	0.64	0.69	0.39	0.15	0.16	0.40	0.89	0.55	0.72	0.10	0.54	0.37
F3.1	**0.86**	**0.91**	0.35		0.56	0.60	0.94	0.40	0.85	0.53	0.36	0.90	0.81	0.77	0.40	0.35	0.87	0.77	0.87	0.39	0.34	0.87	0.23	0.82	0.72	0.35	0.55	0.62
F3.2	0.69	0.03	**0.99**	0.28		0.40	0.52	0.98	0.58	0.35	0.96	0.36	0.61	0.66	0.20	0.96	0.60	0.68	0.34	0.20	0.14	0.35	0.91	0.50	0.71	0.15	0.54	0.36
F3.3	0.16	0.48	-0.28	0.09	-0.22		0.62	0.33	0.47	1.00	0.27	0.49	0.47	0.66	0.95	0.27	0.49	0.65	0.48	0.95	0.24	0.51	0.20	0.40	0.52	0.91	0.54	0.55
F4.1	**0.80**	**0.85**	0.33	**0.93**	0.26	0.12		0.42	0.62	0.54	0.38	0.93	0.58	0.82	0.41	0.36	0.66	0.79	0.92	0.39	0.45	0.94	0.25	0.60	0.71	0.35	0.49	0.72
F4.2	0.59	-0.09	**0.97**	0.14	**0.99**	-0.23	0.18		0.39	0.29	0.99	0.24	0.42	0.60	0.16	0.99	0.41	0.61	0.23	0.15	0.14	0.25	0.96	0.31	0.64	0.10	0.47	0.31
F4.3	0.75	0.67	0.43	0.78	0.38	0.03	0.51	0.22		0.42	0.35	0.61	0.99	0.54	0.32	0.37	0.99	0.59	0.57	0.33	0.08	0.54	0.27	0.97	0.60	0.29	0.55	0.34
F4.4	0.05	0.39	-0.34	-0.02	-0.27	**0.99**	0.00	-0.27	-0.03		0.23	0.42	0.43	0.60	0.97	0.23	0.43	0.60	0.41	0.97	0.20	0.44	0.17	0.35	0.47	0.93	0.51	0.50
F5.1	0.56	-0.14	**0.97**	0.12	**0.98**	-0.32	0.15	**0.99**	0.21	-0.35		0.25	0.37	0.50	0.12	1.00	0.37	0.50	0.24	0.11	0.14	0.25	0.99	0.29	0.56	0.08	0.37	0.26
F5.2	0.60	**0.79**	0.10	**0.89**	0.01	-0.05	**0.90**	-0.09	0.52	-0.15	-0.07		0.53	0.56	0.34	0.22	0.64	0.53	0.99	0.33	0.45	0.98	0.14	0.64	0.50	0.34	0.26	0.59
F5.3	0.76	0.61	0.50	0.72	0.46	0.08	0.44	0.30	**0.98**	0.02	0.28	0.39		0.56	0.32	0.39	0.98	0.62	0.48	0.33	0.04	0.46	0.29	0.94	0.62	0.28	0.60	0.32
F5.4	**0.82**	0.61	0.58	0.61	0.58	0.35	0.71	0.56	0.35	0.26	0.47	0.34	0.40		0.41	0.49	0.57	0.99	0.55	0.39	0.31	0.61	0.37	0.43	0.85	0.29	0.75	0.70
F5.5	-0.14	0.28	-0.51	-0.15	-0.44	**0.95**	-0.14	-0.43	-0.13	**0.97**	-0.50	-0.21	-0.09	0.02		0.12	0.33	0.40	0.33	1.00	0.16	0.36	0.08	0.27	0.30	0.98	0.36	0.39
F6.1	0.55	-0.14	**0.96**	0.11	**0.98**	-0.30	0.13	**0.99**	0.21	-0.33	**1.00**	-0.10	0.29	0.47	-0.48		0.38	0.51	0.21	0.11	0.08	0.22	0.99	0.29	0.55	0.07	0.41	0.22
F6.2	0.77	0.68	0.45	0.80	0.40	0.02	0.54	0.23	**0.99**	-0.05	0.22	0.55	**0.97**	0.37	-0.15	0.22		0.61	0.58	0.33	0.22	0.55	0.28	0.98	0.65	0.31	0.48	0.42
F6.3	**0.82**	0.60	0.60	0.60	0.61	0.36	0.67	0.57	0.40	0.28	0.48	0.30	0.46	**0.99**	0.04	0.48	0.41		0.53	0.39	0.20	0.58	0.38	0.46	0.84	0.28	0.82	0.64
F6.4	0.58	**0.78**	0.08	**0.87**	-0.01	-0.04	**0.90**	-0.10	0.47	-0.14	-0.08	**0.99**	0.34	0.35	-0.19	-0.11	0.49	0.31		0.33	0.35	0.99	0.13	0.58	0.46	0.32	0.31	0.54
F6.5	-0.15	0.27	-0.51	-0.15	-0.45	**0.94**	-0.16	-0.44	-0.12	**0.97**	-0.50	-0.22	-0.08	0.01	**1.00**	-0.48	-0.15	0.03	-0.20		0.11	0.35	0.08	0.28	0.28	0.98	0.38	0.35
F6.6	0.33	0.37	0.12	0.46	0.07	-0.12	0.56	0.04	0.13	-0.18	0.05	0.57	0.06	0.26	-0.23	0.01	0.24	0.17	0.52	-0.27		0.33	0.05	0.23	0.40	0.22	-0.37	0.66
F7.1	0.60	**0.80**	0.08	**0.87**	0.00	0.02	**0.93**	-0.08	0.43	-0.08	-0.07	0.98	0.31	0.42	-0.15	-0.10	0.45	0.38	**0.99**	-0.16	0.49		0.14	0.53	0.47	0.33	0.37	0.58
F7.2	0.46	-0.24	**0.94**	0.02	**0.95**	-0.35	0.04	**0.98**	0.15	-0.37	**0.99**	-0.17	0.23	0.37	-0.49	**0.99**	0.16	0.39	-0.18	-0.49	-0.03	-0.18		0.21	0.42	0.05	0.31	0.17
F7.3	0.62	0.60	0.31	0.74	0.25	-0.12	0.46	0.08	**0.96**	-0.17	0.10	0.57	0.91	0.15	-0.22	0.10	**0.96**	0.18	0.51	-0.21	0.25	0.45	0.05		0.49	0.27	0.36	0.40
F7.4	**0.84**	0.50	0.74	0.58	0.73	0.17	0.65	0.70	0.42	0.09	0.64	0.32	0.47	**0.89**	-0.14	0.63	0.46	**0.88**	0.31	-0.16	0.39	0.34	0.54	0.24		0.26	0.51	0.41

	F1.1	F2.1	F2.2	F3.1	F3.2	F3.3	F4.1	F4.2	F4.3	F4.4	F5.1	F5.2	F5.3	F5.4	F5.5	F6.1	F6.2	F6.3	F6.4	F6.5	F6.6	F7.1	F7.2	F7.3	F7.4	F7.5	F7.6	F7.7
F7.5	-0.20	0.24	-0.56	-0.17	-0.50	**0.90**	-0.19	-0.50	-0.13	**0.93**	-0.54	-0.20	-0.11	-0.09	**0.99**	-0.53	-0.15	-0.07	-0.19	**0.99**	-0.18	-0.16	-0.54	-0.19	-0.20		0.21	0.32
F7.6	0.60	0.43	0.44	0.35	0.48	0.48	0.34	0.44	0.35	0.44	0.35	-0.01	0.46	0.78	0.25	0.38	0.31	**0.84**	0.02	0.25	-0.37	0.10	0.31	0.10	0.57	0.11		0.30
F7.7	0.61	0.70	0.20	0.69	0.16	0.25	0.76	0.10	0.36	0.16	0.04	0.59	0.34	0.69	0.02	0.03	0.41	0.65	0.57	-0.01	**0.59**	0.62	-0.05	0.34	0.46	-0.05	0.36	
F8.1	0.67	**0.82**	0.17	**0.90**	0.09	0.03	**0.96**	0.01	0.47	-0.08	0.01	**0.98**	0.36	0.50	-0.17	-0.02	0.49	0.46	**0.99**	-0.18	0.52	**0.99**	-0.10	0.47	0.44	-0.19	0.16	0.64
F8.2	0.51	-0.19	**0.95**	0.07	**0.96**	-0.32	0.09	**0.98**	0.17	-0.35	**0.99**	-0.12	0.25	0.43	-0.48	**0.99**	0.19	0.44	-0.14	-0.49	0.02	-0.13	**0.99**	0.07	0.59	-0.53	0.33	0.02
F8.3	0.62	0.41	0.51	0.63	0.45	-0.25	0.35	0.30	**0.92**	-0.30	0.33	0.44	**0.90**	0.12	-0.35	0.33	**0.92**	0.17	0.38	-0.34	0.14	0.31	0.31	**0.95**	0.27	-0.33	0.12	0.19
F8.4	**0.87**	0.78	0.49	0.82	0.46	0.27	0.78	0.36	0.67	0.18	0.30	0.57	0.67	**0.81**	-0.01	0.29	0.71	**0.80**	0.53	-0.03	0.52	0.54	0.18	0.55	**0.86**	-0.05	0.49	0.65
F8.5	-0.24	0.20	-0.57	-0.21	-0.51	**0.88**	-0.23	-0.50	-0.16	**0.92**	-0.54	-0.23	-0.13	-0.13	**0.98**	-0.53	-0.18	-0.11	-0.22	**0.98**	-0.22	-0.19	-0.53	-0.21	-0.24	**1.00**	0.09	-0.10
F8.6	0.69	0.73	0.29	0.73	0.25	0.24	0.79	0.19	0.42	0.14	0.13	0.60	0.40	0.75	-0.02	0.11	0.47	0.72	0.58	-0.05	**0.59**	0.62	0.03	0.38	0.57	-0.09	0.42	**0.99**
F8.7	0.60	0.41	0.46	0.33	0.49	0.48	0.33	0.47	0.32	0.44	0.37	-0.03	0.43	0.80	0.24	0.40	0.28	0.85	0.01	0.25	-0.35	0.09	0.33	0.06	0.59	0.11	**1.00**	0.36
F8.8	0.56	0.00	0.83	0.15	0.85	-0.06	0.25	0.88	0.12	-0.10	0.85	-0.06	0.20	0.64	-0.28	**0.85**	0.14	0.64	-0.06	-0.29	0.09	-0.03	0.81	-0.06	0.81	-0.34	0.47	0.05
F9.1	0.57	**0.81**	0.03	**0.87**	-0.06	0.02	**0.91**	-0.15	0.46	-0.08	-0.14	**0.99**	0.33	0.37	-0.14	-0.17	0.48	0.32	**0.99**	-0.15	0.50	**0.99**	-0.24	0.49	0.28	-0.14	0.06	0.62
F9.2	0.50	-0.19	**0.94**	0.07	**0.96**	-0.33	0.09	**0.97**	0.19	-0.36	**0.99**	-0.12	0.26	0.41	-0.49	0.99	0.20	0.42	-0.13	-0.49	0.04	-0.13	**0.99**	0.09	0.57	-0.54	0.31	0.03
F9.3	0.72	0.36	0.70	0.60	0.66	-0.25	0.36	0.53	**0.88**	-0.31	0.55	0.35	**0.89**	0.28	-0.40	0.55	**0.88**	0.32	0.30	-0.39	0.10	0.25	0.52	**0.85**	0.44	-0.40	0.26	0.19
F9.4	-0.14	0.19	-0.43	-0.22	-0.35	**0.92**	-0.21	-0.33	-0.16	**0.95**	-0.38	-0.28	-0.12	0.00	**0.98**	-0.36	-0.19	0.03	-0.26	**0.98**	-0.26	-0.22	-0.37	-0.26	-0.10	**0.97**	0.23	-0.09
F9.5	**0.87**	0.53	0.74	0.62	0.73	0.17	0.67	0.69	0.47	0.09	0.62	0.36	0.52	**0.90**	-0.13	0.62	0.51	**0.89**	0.34	-0.15	0.35	0.38	0.53	0.30	**0.96**	-0.20	0.62	0.51
F9.6	0.55	0.71	0.10	0.70	0.05	0.23	0.71	-0.03	0.42	0.15	-0.07	0.61	0.38	0.57	0.03	-0.09	0.47	0.54	0.58	0.01	**0.58**	0.61	-0.16	0.43	0.35	-0.02	0.28	**0.98**
F9.7	0.58	0.45	0.40	0.35	0.43	0.50	0.35	0.40	0.32	0.45	0.30	0.00	0.42	0.79	0.26	0.33	0.28	0.84	0.04	0.27	-0.35	0.12	0.25	0.07	0.56	0.13	**0.99**	0.39
F9.8	0.10	0.56	-0.43	0.46	-0.48	0.22	0.31	-0.60	0.45	0.19	-0.60	0.48	0.36	-0.09	0.24	-0.61	0.47	-0.10	0.43	0.23	0.36	0.40	-0.65	0.55	-0.13	0.29	-0.20	0.34
F9.9	0.62	0.09	0.83	0.24	0.84	-0.03	0.33	0.86	0.17	-0.08	0.83	0.02	0.24	0.69	-0.27	0.82	0.19	0.69	0.02	-0.28	0.15	0.05	0.78	-0.01	0.85	-0.33	0.48	0.12
F10.1	0.66	**0.79**	0.18	**0.88**	0.10	0.02	**0.95**	0.02	0.44	-0.09	0.02	**0.96**	0.33	0.51	-0.18	0.00	0.45	0.47	**0.97**	-0.19	0.45	**0.99**	-0.08	0.42	0.44	-0.20	0.19	0.59
F10.2	0.47	-0.23	**0.93**	0.03	**0.95**	-0.33	0.06	**0.98**	0.14	-0.35	**0.99**	-0.16	0.22	0.40	-0.48	**0.99**	0.15	0.42	-0.17	-0.49	0.00	-0.16	**0.99**	0.04	0.56	-0.53	0.32	-0.01
F10.3	0.70	0.44	0.59	0.67	0.53	-0.25	0.41	0.39	**0.93**	-0.31	0.41	0.46	**0.91**	0.23	-0.39	0.41	**0.93**	0.27	0.40	-0.38	0.18	0.35	0.38	**0.93**	0.37	-0.37	0.19	0.27
F10.4	**0.90**	0.68	0.64	0.76	0.62	0.20	0.74	0.54	0.62	0.10	0.49	0.52	0.64	0.82	-0.09	0.48	0.67	0.80	0.48	-0.11	**0.50**	0.50	0.39	0.49	0.92	-0.13	0.48	0.56
F10.5	-0.23	0.20	-0.57	-0.21	-0.50	**0.89**	-0.22	-0.49	-0.15	**0.92**	-0.54	-0.23	-0.13	-0.12	**0.98**	-0.52	-0.17	-0.10	-0.22	**0.98**	-0.20	-0.20	-0.52	-0.21	-0.23	**1.00**	0.09	-0.08
F10.6	0.65	0.63	0.33	0.60	0.31	0.33	0.68	0.27	0.32	0.25	0.19	0.39	0.36	**0.85**	0.06	0.18	0.35	**0.84**	0.40	0.04	0.28	0.47	0.10	0.20	0.58	-0.06	0.68	**0.90**
F10.7	0.82	0.42	0.78	0.57	0.76	0.02	0.62	0.73	0.43	-0.06	0.69	0.35	0.46	0.79	-0.26	0.68	0.48	0.77	0.32	-0.28	0.46	0.34	0.61	0.30	**0.91**	-0.31	0.44	0.48
F10.8	0.58	0.34	0.50	0.27	0.55	0.47	0.25	0.52	0.32	0.44	0.44	-0.08	0.43	0.70	0.26	0.47	0.27	0.77	-0.04	0.27	-0.42	0.03	0.42	0.06	0.56	0.14	**0.95**	0.22

	F1.1	F2.1	F2.2	F3.1	F3.2	F3.3	F4.1	F4.2	F4.3	F4.4	F5.1	F5.2	F5.3	F5.4	F5.5	F6.1	F6.2	F6.3	F6.4	F6.5	F6.6	F7.1	F7.2	F7.3	F7.4	F7.5	F7.6	F7.7
F10.9	-0.03	0.46	-0.50	0.40	-0.57	0.07	0.28	-0.66	0.33	0.04	-0.64	0.54	0.21	-0.26	0.14	-0.65	0.34	-0.28	0.51	0.13	0.34	0.47	-0.66	0.49	-0.37	0.19	-0.35	0.37
F10.10	0.29	0.50	-0.09	0.37	-0.09	0.42	0.31	-0.16	0.33	0.40	-0.24	0.15	0.36	0.43	0.30	-0.22	0.32	0.46	0.16	0.30	-0.08	0.20	-0.29	0.21	0.28	0.24	0.51	0.32

Table 5

Profile Similarity and Correlations of Factor Scores with Highest Profile Similarity Scores Between Factors Bolded (Continued)

	F8.1	**F8.2**	**F8.3**	**F8.4**	**F8.5**	**F8.6**	**F8.7**	**F8.8**	**F9.1**	**F9.2**	**F9.3**	**F9.4**	**F9.5**	**F9.6**	**F9.7**	**F9.8**	**F9.9**	**F10.1**	**F10.2**	**F10.3**	**F10.4**	**F10.5**	**F10.6**	**F10.7**	**F10.8**	**F10.9**	**F10.10**
F1.1	0.81	0.58	0.74	0.81	0.40	0.69	0.63	0.45	0.76	0.60	0.77	0.43	0.78	0.61	0.63	0.41	0.55	0.77	0.53	0.78	0.86	0.38	0.63	0.74	0.64	0.43	0.28
F2.1	0.88	0.25	0.66	0.80	0.52	0.71	0.56	0.23	0.86	0.28	0.64	0.51	0.68	0.66	0.58	0.54	0.34	0.84	0.20	0.69	0.80	0.51	0.64	0.63	0.55	0.60	0.32
F2.2	0.46	0.92	0.63	0.59	0.08	0.44	0.54	0.66	0.38	0.91	0.74	0.17	0.69	0.34	0.51	0.08	0.69	0.44	0.89	0.68	0.68	0.06	0.42	0.68	0.58	0.04	0.13
F3.1	0.90	0.31	0.73	0.82	0.31	0.68	0.54	0.24	0.89	0.34	0.72	0.30	0.71	0.63	0.55	0.55	0.35	0.87	0.26	0.77	0.82	0.29	0.62	0.63	0.50	0.58	0.35
F3.2	0.41	0.94	0.59	0.55	0.14	0.43	0.55	0.68	0.33	0.93	0.71	0.23	0.67	0.32	0.51	0.04	0.71	0.39	0.91	0.64	0.66	0.12	0.40	0.67	0.60	0.00	0.10
F3.3	0.54	0.24	0.35	0.52	0.89	0.58	0.53	0.28	0.51	0.25	0.37	0.89	0.49	0.53	0.53	0.28	0.35	0.48	0.20	0.37	0.57	0.88	0.52	0.54	0.59	0.37	0.14
F4.1	0.96	0.33	0.51	0.74	0.31	0.77	0.49	0.31	0.93	0.35	0.52	0.32	0.69	0.70	0.50	0.42	0.41	0.93	0.28	0.56	0.77	0.30	0.69	0.67	0.46	0.52	0.23
F4.2	0.31	0.97	0.42	0.42	0.09	0.38	0.48	0.73	0.21	0.95	0.56	0.21	0.60	0.27	0.44	-0.11	0.73	0.29	0.96	0.48	0.55	0.08	0.36	0.64	0.54	-0.13	0.00
F4.3	0.58	0.32	0.91	0.76	0.26	0.41	0.52	0.17	0.58	0.36	0.89	0.24	0.60	0.38	0.53	0.58	0.26	0.56	0.28	0.93	0.72	0.25	0.37	0.47	0.50	0.48	0.42
F4.4	0.47	0.21	0.31	0.47	0.91	0.53	0.51	0.26	0.44	0.22	0.32	0.92	0.44	0.49	0.50	0.26	0.32	0.41	0.17	0.32	0.52	0.91	0.47	0.49	0.57	0.33	0.13
F5.1	0.30	0.98	0.43	0.34	0.08	0.31	0.38	0.70	0.21	0.97	0.56	0.19	0.52	0.21	0.33	-0.15	0.70	0.28	0.97	0.47	0.49	0.06	0.26	0.60	0.47	-0.12	-0.09
F5.2	0.98	0.20	0.57	0.60	0.31	0.62	0.24	0.13	0.99	0.23	0.53	0.28	0.49	0.59	0.26	0.46	0.23	0.95	0.15	0.59	0.63	0.29	0.47	0.54	0.27	0.64	0.11
F5.3	0.51	0.35	0.89	0.76	0.24	0.40	0.57	0.20	0.50	0.38	0.88	0.24	0.62	0.36	0.58	0.55	0.29	0.49	0.31	0.91	0.72	0.24	0.39	0.47	0.54	0.41	0.45
F5.4	0.66	0.46	0.34	0.79	0.24	0.77	0.76	0.50	0.59	0.46	0.42	0.31	0.83	0.67	0.76	0.27	0.58	0.64	0.42	0.43	0.79	0.24	0.82	0.70	0.65	0.20	0.38
F5.5	0.37	0.10	0.24	0.31	0.98	0.40	0.35	0.15	0.36	0.11	0.24	0.96	0.27	0.38	0.34	0.22	0.19	0.31	0.07	0.23	0.37	0.97	0.32	0.37	0.46	0.34	0.03
F6.1	0.28	0.99	0.43	0.33	0.08	0.28	0.42	0.70	0.19	0.97	0.57	0.19	0.52	0.18	0.37	-0.16	0.69	0.26	0.98	0.47	0.48	0.05	0.25	0.57	0.51	-0.15	-0.06
F6.2	0.60	0.34	0.92	0.80	0.27	0.49	0.46	0.20	0.59	0.38	0.89	0.25	0.62	0.46	0.47	0.62	0.30	0.56	0.29	0.94	0.76	0.26	0.41	0.55	0.44	0.52	0.40
F6.3	0.64	0.47	0.38	0.79	0.23	0.71	0.83	0.48	0.56	0.46	0.46	0.30	0.83	0.61	0.83	0.27	0.56	0.62	0.43	0.46	0.78	0.23	0.80	0.66	0.72	0.17	0.42
F6.4	0.99	0.19	0.51	0.55	0.29	0.57	0.29	0.11	0.99	0.21	0.48	0.28	0.48	0.54	0.31	0.39	0.20	0.97	0.14	0.53	0.59	0.27	0.46	0.47	0.32	0.59	0.11
F6.5	0.36	0.09	0.25	0.30	0.97	0.36	0.38	0.13	0.36	0.10	0.25	0.96	0.26	0.35	0.37	0.21	0.17	0.31	0.06	0.24	0.35	0.97	0.29	0.33	0.48	0.33	0.04
F6.6	0.35	0.08	0.18	0.37	0.20	0.66	-0.37	0.22	0.35	0.13	0.12	0.13	0.23	0.66	-0.35	0.39	0.30	0.23	0.05	0.21	0.39	0.21	0.36	0.62	-0.36	0.47	-0.12
F7.1	0.99	0.20	0.46	0.54	0.30	0.61	0.36	0.13	0.99	0.22	0.44	0.30	0.49	0.57	0.37	0.35	0.22	0.98	0.16	0.49	0.58	0.28	0.52	0.48	0.38	0.57	0.12
F7.2	0.19	0.98	0.39	0.19	0.06	0.21	0.32	0.65	0.10	0.96	0.51	0.17	0.39	0.12	0.27	-0.24	0.63	0.16	0.98	0.41	0.35	0.04	0.17	0.50	0.44	-0.18	-0.16
F7.3	0.57	0.26	0.95	0.68	0.24	0.46	0.33	0.07	0.59	0.31	0.89	0.19	0.47	0.45	0.34	0.64	0.17	0.52	0.22	0.96	0.65	0.23	0.35	0.47	0.33	0.61	0.33
F7.4	0.56	0.50	0.42	0.90	0.20	0.51	0.53	0.66	0.46	0.50	0.50	0.26	0.92	0.39	0.51	0.34	0.74	0.53	0.46	0.48	0.92	0.20	0.48	0.74	0.47	0.08	0.38

	F8.1	F8.2	F8.3	F8.4	F8.5	F8.6	F8.7	F8.8	F9.1	F9.2	F9.3	F9.4	F9.5	F9.6	F9.7	F9.8	F9.9	F10.1	F10.2	F10.3	F10.4	F10.5	F10.6	F10.7	F10.8	F10.9	F10.10
F7.5	0.34	0.06	0.25	0.27	1.00	0.32	0.20	0.13	0.33	0.07	0.23	0.97	0.21	0.31	0.19	0.25	0.17	0.27	0.02	0.23	0.34	0.99	0.19	0.35	0.34	0.36	-0.03
F7.6	0.40	0.37	0.31	0.51	0.18	0.35	1.00	0.27	0.34	0.35	0.40	0.27	0.60	0.27	0.99	0.06	0.30	0.45	0.36	0.37	0.49	0.17	0.60	0.27	0.89	-0.02	0.46
F7.7	0.59	0.23	0.34	0.45	0.29	0.99	0.29	0.14	0.59	0.26	0.31	0.27	0.37	0.99	0.32	0.36	0.23	0.49	0.20	0.41	0.44	0.30	0.89	0.64	0.22	0.58	0.07
F8.1		0.25	0.49	0.62	0.30	0.63	0.39	0.19	0.99	0.27	0.49	0.31	0.57	0.58	0.41	0.38	0.28	0.98	0.21	0.53	0.66	0.28	0.54	0.53	0.41	0.55	0.16
F8.2	-0.05		0.38	0.32	0.06	0.28	0.38	0.59	0.17	0.99	0.50	0.16	0.49	0.19	0.34	-0.14	0.58	0.23	1.00	0.42	0.45	0.04	0.26	0.49	0.45	-0.12	-0.05
F8.3	0.35	0.30		0.51	0.25	0.39	0.28	0.25	0.50	0.41	0.97	0.22	0.37	0.37	0.28	0.45	0.32	0.44	0.33	0.99	0.54	0.22	0.24	0.55	0.37	0.50	0.15
F8.4	0.62	0.25	0.44		0.20	0.54	0.52	0.28	0.57	0.36	0.53	0.20	0.87	0.47	0.53	0.61	0.40	0.59	0.28	0.58	0.93	0.21	0.54	0.56	0.38	0.35	0.55
F8.5	-0.22	-0.53	-0.34	-0.11		0.30	0.17	0.14	0.30	0.07	0.23	0.97	0.15	0.29	0.16	0.19	0.18	0.23	0.03	0.22	0.28	0.99	0.15	0.34	0.33	0.34	-0.09
F8.6	0.66	0.10	0.24	0.73	-0.14		0.35	0.20	0.62	0.31	0.37	0.28	0.46	0.99	0.37	0.39	0.30	0.54	0.25	0.46	0.53	0.30	0.90	0.68	0.27	0.58	0.13
F8.7	0.15	0.36	0.09	0.49	0.08	0.41		0.29	0.33	0.36	0.38	0.27	0.62	0.26	0.99	0.05	0.32	0.44	0.37	0.34	0.49	0.16	0.60	0.27	0.89	-0.05	0.46
F8.8	0.06	**0.80**	0.15	0.41	-0.34	0.15	0.50		0.07	0.53	0.39	0.26	0.50	0.06	0.24	-0.26	0.98	0.17	0.56	0.25	0.46	0.11	0.10	0.74	0.43	-0.35	-0.13
F9.1	**0.98**	-0.19	0.34	0.53	-0.17	0.61	0.04	-0.11		0.21	0.46	0.27	0.46	0.59	0.35	0.46	0.18	0.97	0.13	0.53	0.58	0.28	0.52	0.48	0.33	0.63	0.19
F9.2	-0.05	**1.00**	0.31	0.26	-0.53	0.11	0.33	**0.77**	-0.18		0.50	0.14	0.46	0.24	0.33	-0.01	0.55	0.25	0.99	0.45	0.44	0.05	0.29	0.52	0.40	-0.04	0.04
F9.3	0.31	0.51	**0.96**	0.49	-0.41	0.26	0.24	0.39	0.25	0.52		0.26	0.51	0.32	0.35	0.27	0.42	0.44	0.45	0.97	0.62	0.20	0.25	0.56	0.50	0.35	0.05
F9.4	-0.24	-0.37	-0.35	-0.05	**0.97**	-0.11	0.23	-0.16	-0.22	-0.39	-0.36		0.26	0.24	0.23	0.01	0.26	0.24	0.12	0.20	0.34	0.97	0.16	0.34	0.46	0.21	-0.19
F9.5	0.47	0.58	0.31	**0.87**	-0.25	0.60	0.63	0.73	0.31	0.56	0.49	-0.10		0.33	0.58	0.16	0.54	0.55	0.44	0.47	0.95	0.17	0.50	0.50	0.58	0.04	0.24
F9.6	0.63	-0.09	0.25	0.62	-0.07	**0.96**	0.27	-0.10	0.63	-0.07	0.20	-0.09	0.40		0.30	0.45	0.16	0.48	0.16	0.44	0.42	0.29	0.88	0.61	0.17	0.65	0.13
F9.7	0.17	0.28	0.08	0.49	0.10	0.44	**0.99**	0.43	0.08	0.26	0.20	0.23	0.59	0.31		0.13	0.29	0.45	0.33	0.34	0.47	0.15	0.62	0.28	0.85	0.00	0.54
F9.8	0.37	-0.61	0.29	0.34	0.26	0.32	-0.23	-0.60	0.49	-0.56	0.06	0.08	-0.17	0.49	-0.15		-0.08	0.35	-0.13	0.45	0.37	0.18	0.30	0.32	-0.15	0.69	0.71
F9.9	0.14	0.77	0.18	0.48	-0.34	0.22	0.51	**0.99**	-0.03	0.75	0.40	-0.17	0.76	-0.02	0.45	-0.51		0.26	0.56	0.32	0.53	0.14	0.19	0.84	0.42	-0.23	0.01
F10.1	**0.99**	-0.04	0.31	0.59	-0.23	0.61	0.18	0.10	**0.97**	-0.04	0.28	-0.24	0.46	0.57	0.21	0.32	0.18		0.20	0.48	0.61	0.22	0.51	0.46	0.41	0.45	0.24
F10.2	-0.08	**1.00**	0.27	0.22	-0.53	0.07	0.35	0.80	-0.22	**1.00**	0.49	-0.37	0.55	-0.12	0.27	-0.62	0.77	-0.07		0.38	0.39	0.01	0.25	0.46	0.41	-0.15	-0.01
F10.3	0.39	0.38	**0.99**	0.51	-0.39	0.33	0.16	0.23	0.37	0.39	**0.98**	-0.38	0.42	0.31	0.14	0.24	0.26	0.36	0.35		0.60	0.20	0.34	0.55	0.38	0.47	0.18
F10.4	0.58	0.44	0.46	**0.95**	-0.18	0.65	0.49	0.58	0.46	0.43	0.57	-0.08	**0.95**	0.50	0.46	0.09	0.64	0.55	0.40	0.54		0.29	0.45	0.62	0.51	0.29	0.24
F10.5	-0.22	-0.52	-0.34	-0.09	**1.00**	-0.12	0.09	-0.34	-0.18	-0.53	-0.40	**0.98**	-0.22	-0.05	0.10	0.25	-0.33	-0.24	-0.52	-0.38	-0.16		0.17	0.29	0.29	0.30	-0.08
F10.6	0.51	0.17	0.10	0.67	-0.10	**0.91**	0.69	0.24	0.44	0.17	0.17	-0.03	0.64	**0.84**	0.71	0.12	0.29	0.50	0.15	0.20	0.58	-0.08		0.47	0.38	0.33	0.33
F10.7	0.43	0.63	0.40	0.72	-0.34	0.57	0.46	**0.83**	0.30	0.63	0.53	-0.23	0.81	0.37	0.43	-0.11	**0.88**	0.43	0.61	0.46	0.80	-0.34	0.50		0.35	0.31	0.10
F10.8	0.08	0.42	0.14	0.40	0.13	0.27	**0.95**	0.55	-0.03	0.40	0.31	0.29	0.61	0.12	**0.92**	-0.35	0.55	0.11	0.41	0.19	0.48	0.12	0.51	0.46		0.01	0.10

	F8.1	F8.2	F8.3	F8.4	F8.5	F8.6	F8.7	F8.8	F9.1	F9.2	F9.3	F9.4	F9.5	F9.6	F9.7	F9.8	F9.9	F10.1	F10.2	F10.3	F10.4	F10.5	F10.6	F10.7	F10.8	F10.9	F10.10
F10.9	0.42	-0.63	0.26	0.10	0.17	0.31	-0.38	-0.77	0.55	-0.59	0.02	0.00	-0.33	0.52	-0.31	**0.84**	-0.70	0.34	-0.65	0.20	-0.07	0.16	0.05	-0.30	-0.41		0.11
F10.10	0.21	-0.25	0.04	0.48	0.20	0.35	0.51	-0.07	0.23	-0.22	-0.03	0.15	0.20	0.36	0.58	0.57	0.01	0.25	-0.24	0.05	0.23	0.20	0.48	0.17	0.29	0.16	

Table 6

Summary of Identified Aspects and Facets of Openness

Aspects	Name of Facets	Example Items
Culture (2.1)		I believe in the importance of art
	Aesthetics (10.1)	I enjoy spending time in museums or art galleries
	Creativity (10.3)	I am inventive, find clever ways to do things
	Depth (10.4)	I am always interested in learning more about philosophy
	Nonconformity (10.5)	The traditional family is essential to our society (R)
	Liberalism (10.6)	Like most people I am open to listening to what others have to say
	Curiosity (10.8)	I like to try new things
	Escapism (10.9)	I experience my emotions intensely
	Unconventionality (10.10)	I tend to take an unconventional approach to things
Intellect (2.2)		I am quick to understand things
	Intellectual Efficiency (10.2)	I am very quick at processing information
	Intellectual Effort (10.7)	I have never really been interested in science (R)

Table 7

Factor Score Correlations with External Variable Scales

		F1.1	F2.1	F2.2	F3.1	F3.2	F3.3	F4.1	F4.2	F4.3	F4.4	F5.1	F5.2	F5.3	F5.4	F5.5	F6.1	F6.2	F6.3	F6.4	F6.5	F6.6
Need for Closure		-0.4	-0.33	**-0.38**	-0.28	-0.4	**-0.41**	-0.26	-0.38	-0.3	**-0.41**	-0.35	-0.16	-0.32	**-0.36**	**-0.36**	-0.37	-0.27	**-0.39**	-0.17	-0.37	0.13
Need for Cognition		0.76	0.61	**0.75**	0.63	**0.75**	0.48	0.6	**0.69**	0.59	0.44	**0.64**	0.44	0.61	0.7	0.29	0.64	0.62	**0.71**	0.41	0.28	0.27
SPQ		-0.01	0.17	**-0.27**	0.13	**-0.29**	0.09	0.04	**-0.38**	0.2	0.1	**-0.4**	0.09	0.19	-0.04	0.12	**-0.4**	0.21	-0.04	0.06	0.12	0.09
Perceptual Curiosity		0.56	**0.53**	0.44	**0.54**	0.42	0.39	0.48	0.34	**0.52**	0.36	0.3	0.4	**0.52**	0.5	0.27	0.31	0.5	**0.53**	0.4	0.28	-0.02
TIE		0.75	0.65	**0.68**	0.67	**0.67**	0.5	**0.64**	0.59	0.6	0.45	0.53	0.47	0.62	**0.73**	0.3	0.53	0.62	**0.74**	0.45	0.29	0.22
LWA		0.08	**0.22**	-0.15	0.12	-0.14	**0.35**	0.09	-0.19	0.11	**0.37**	-0.18	0.15	0.09	-0.02	**0.43**	-0.18	0.1	-0.01	0.16	**0.44**	-0.05
RWA		-0.01	-0.03	0.03	0.05	0	**-0.25**	0.05	-0.02	0.03	**-0.27**	-0.04	0.01	0.03	0.09	**-0.33**	-0.03	0.02	0.09	0.02	**-0.33**	-0.05
BFI																						
	Extraversion	0.39	0.24	**0.49**	0.31	**0.48**	0.1	0.23	**0.44**	0.39	0.07	0.4	0.13	**0.42**	0.35	-0.03	**0.43**	0.35	0.41	0.15	-0.01	-0.29
	Agreeableness	0.11	**0.14**	0.03	**0.15**	0.02	0.06	**0.24**	0.03	-0.03	0.03	0.02	**0.21**	-0.04	0.2	-0.01	0	-0.01	0.17	**0.21**	-0.02	0.18
	Conscientiousness	0.11	-0.03	**0.28**	0.06	**0.27**	-0.16	**0.11**	0.3	-0.01	-0.19	0.3	0.04	0	0.19	**-0.26**	**0.29**	0	0.19	0.05	**-0.27**	0.02
	Neuroticism	-0.14	0.08	**-0.43**	0.01	**-0.44**	0.11	-0.02	-0.5	0	**0.12**	-0.5	0.08	-0.03	**-0.18**	0.2	**-0.51**	0.01	-0.2	0.06	0.2	0.15
X18 REST																						
	Realistic	0.16	0.05	**0.27**	0.1	**0.27**	-0.03	0.08	**0.27**	0.13	-0.04	**0.24**	-0.03	0.16	0.22	-0.12	**0.25**	0.12	0.24	-0.03	-0.12	-0.05
	Investigative	0.44	**0.32**	0.5	**0.35**	0.5	0.24	0.35	**0.48**	0.31	0.21	0.43	0.2	0.34	**0.49**	0.09	**0.44**	0.33	0.49	0.18	0.08	0.16
	Artistic	0.47	**0.49**	0.28	**0.53**	0.25	0.26	**0.48**	0.15	0.46	0.22	0.15	**0.51**	0.43	0.31	0.17	0.15	0.44	0.32	**0.52**	0.19	0.01
	Social	0.4	**0.41**	0.27	**0.42**	0.25	0.27	**0.43**	0.21	0.3	0.24	0.18	0.36	0.29	**0.41**	0.16	0.17	0.3	**0.41**	0.37	0.16	0.07
	Enterprising	0.26	0.1	**0.42**	0.17	**0.41**	0	0.13	**0.4**	0.22	-0.02	**0.37**	0.02	0.25	0.29	-0.12	**0.39**	0.2	0.32	0.03	-0.11	-0.17
	Conventional	0.24	0.11	**0.36**	0.16	**0.35**	0.02	0.16	**0.36**	0.16	0	**0.32**	0.04	0.19	0.3	-0.09	**0.33**	0.16	0.31	0.04	-0.09	-0.01
ICAR		0.07	0.03	**0.1**	0	**0.12**	**0.13**	0.04	**0.15**	-0.04	**0.13**	**0.14**	-0.01	-0.03	0.1	**0.12**	**0.13**	-0.01	**0.08**	-0.03	**0.11**	**0.17**
Sandia Matrices		0.13	**0.1**	**0.14**	**0.08**	**0.15**	**0.15**	**0.11**	**0.16**	0.04	**0.15**	**0.16**	0.07	0.04	**0.13**	**0.13**	**0.15**	**0.08**	**0.11**	0.04	**0.12**	**0.25**
CAQ		0.4	**0.4**	0.27	**0.4**	0.25	0.29	0.32	0.17	**0.43**	0.27	0.16	0.33	**0.42**	0.25	0.24	0.16	**0.43**	0.26	0.3	0.24	0.12
	Arts	0.37	**0.4**	0.21	**0.4**	0.19	0.29	0.33	0.1	**0.41**	0.27	0.1	0.35	**0.4**	0.22	0.25	0.09	**0.42**	0.23	0.33	0.25	0.1
	Science	0.2	0.12	**0.27**	0.14	0.27	0.11	0.1	**0.25**	0.19	0.1	**0.24**	0.05	0.2	0.18	0.06	**0.24**	0.21	0.18	0.02	0.05	0.12

		F1.1	F2.1	F2.2	F3.1	F3.2	F3.3	F4.1	F4.2	F4.3	F4.4	F5.1	F5.2	F5.3	F5.4	F5.5	F6.1	F6.2	F6.3	F6.4	F6.5	F6.6
Divergent Thinking		0.2	**0.22**	0.12	**0.2**	0.12	**0.2**	**0.19**	0.09	0.17	**0.19**	0.09	**0.19**	0.15	0.15	0.18	0.07	0.2	0.13	0.16	0.17	**0.27**
	Alternative Uses	0.23	**0.23**	0.15	**0.22**	0.15	0.21	**0.21**	0.12	0.18	0.2	0.11	**0.21**	0.17	0.16	0.18	0.1	0.22	0.14	0.18	0.17	**0.26**
	Consequences	0.14	**0.16**	0.06	0.14	0.06	**0.16**	0.14	0.04	0.11	**0.15**	0.04	0.14	0.1	0.1	**0.15**	0.03	0.14	0.08	0.11	0.14	**0.24**

Note. Highest correlations for each external variable per factor solution are in boldface. Any positive and negative correlations with separate facets for the same external variable are in boldface. For the ICAR and Sandia Matrices, all correlations greater than | *r* | = .076 are in boldface.

Table 7

Factor Score Correlations with External Variable Scales (Continued)

		F7.1	F7.2	F7.3	F7.4	F7.5	F7.6	F7.7	F8.1	F8.2	F8.3	F8.4	F8.5	F8.6	F8.7	F8.8
Need for Closure		-0.19	-0.32	-0.18	**-0.38**	-0.32	-0.43	-0.04	-0.22	-0.32	-0.23	-0.27	-0.32	-0.09	**-0.44**	-0.4
Need for Cognition		0.41	0.55	0.51	**0.78**	0.25	0.49	0.39	0.48	**0.61**	0.5	0.7	0.22	0.47	0.5	0.56
SPQ		0.04	**-0.44**	0.23	0.01	0.15	-0.07	0.01	0.04	**-0.38**	0.08	0.23	0.12	0.02	-0.07	-0.36
Perceptual Curiosity		0.42	0.24	0.44	0.44	0.21	**0.52**	0.27	0.45	0.3	0.38	0.49	0.18	0.32	**0.51**	0.15
TIE		0.46	0.43	0.5	**0.79**	0.25	0.55	0.37	0.53	0.5	0.44	**0.75**	0.2	0.45	0.55	0.47
LWA		0.15	-0.19	0.11	-0.06	**0.44**	0.06	0.02	0.14	-0.15	0.02	0.08	**0.43**	0.02	0.06	-0.28
RWA		0.03	-0.05	0.02	0.02	**-0.37**	0.1	0.06	0.03	-0.01	-0.04	0.08	**-0.39**	0.07	0.1	-0.12
BFI																
	Extraversion	0.17	**0.39**	0.3	0.26	-0.11	0.55	0.08	0.2	0.42	0.32	0.25	-0.12	0.12	0.55	0.19
	Agreeableness	0.24	0	0	0.01	-0.05	0.08	**0.37**	0.23	0.03	-0.04	0.04	-0.06	0.35	0.08	-0.09
	Conscientiousness	0.07	0.3	-0.01	0.05	**-0.33**	0.16	0.22	0.08	0.31	0.02	0.01	-0.33	0.22	0.17	0.09
	Neuroticism	0.04	**-0.51**	0.07	-0.19	0.25	-0.23	0.04	0.02	-0.48	-0.06	0.01	0.23	0.02	-0.24	-0.45
X18 REST																
	Realistic	-0.02	0.2	0.05	**0.34**	-0.14	0.21	-0.08	0.02	0.2	0.08	0.21	-0.15	-0.04	0.22	**0.38**
	Investigative	0.19	0.37	0.23	**0.59**	0.06	0.33	0.18	0.24	0.39	0.25	0.45	0.04	0.24	0.34	**0.53**
	Artistic	**0.51**	0.09	0.43	0.33	0.16	0.29	0.13	**0.52**	0.12	0.38	0.39	0.14	0.17	0.28	0.1
	Social	0.4	0.13	0.28	0.26	0.1	0.36	**0.37**	0.4	0.18	0.22	0.32	0.08	**0.38**	0.36	0.02
	Enterprising	0.05	0.36	0.14	0.29	-0.17	**0.37**	0.02	0.08	**0.38**	0.16	0.23	-0.19	0.06	0.37	0.25
	Conventional	0.05	0.29	0.09	**0.36**	-0.13	0.26	0.03	0.09	**0.32**	0.09	0.28	-0.14	0.08	0.27	0.3
ICAR		-0.03	**0.13**	-0.04	**0.13**	**0.13**	-0.03	**0.09**	-0.01	**0.12**	0.01	0.03	**0.14**	0.1	-0.02	**0.24**
Sandia Matrices		0.04	**0.14**	0.06	**0.16**	**0.14**	-0.04	**0.18**	0.06	**0.12**	**0.11**	0.07	**0.15**	**0.18**	-0.03	**0.25**
CAQ		0.29	0.11	**0.42**	0.32	0.25	0.18	0.15	0.31	0.13	**0.39**	0.37	0.23	0.18	0.18	0.15
	Arts	0.31	0.05	**0.41**	0.28	0.26	0.17	0.13	0.33	0.07	**0.37**	0.34	0.24	0.16	0.16	0.08
	Science	0.01	0.22	0.17	**0.25**	0.06	0.09	0.09	0.04	**0.22**	0.19	0.2	0.05	0.11	0.1	0.24
Divergent Thinking		0.15	0.06	0.2	0.18	0.2	-0.02	**0.21**	0.16	0.06	0.2	0.18	0.2	**0.22**	-0.03	0.13
	Alternative Uses	0.17	0.08	0.21	0.2	0.2	0	**0.21**	0.18	0.08	0.21	0.2	0.19	**0.22**	0	0.14
		F7.1	F7.2	F7.3	F7.4	F7.5	F7.6	F7.7	F8.1	F8.2	F8.3	F8.4	F8.5	F8.6	F8.7	F8.8

Consequences	0.1	0.02	0.14	0.12	0.16	-0.05	**0.18**	0.11	0.01	0.15	0.12	0.16	**0.18**	-0.05	0.1

Note. Highest correlations for each external variable per factor solution are in boldface. Any positive and negative correlations with separate facets for the same external variable are in boldface. For the ICAR and Sandia Matrices, all correlations greater than | *r* | = .076 are in boldface.

Table 7

Factor Score Correlations with External Measure Scales (Continued)

		F9.1	F9.2	F9.3	F9.4	F9.5	F9.6	F9.7	F9.8	F9.9	F10.1	F10.2	F10.3	F10.4	F10.5	F10.6	F10.7	F10.8	F10.9	F10.10
Need for Closure		-0.15	-0.27	-0.33	-0.41	**-0.44**	0	-0.39	0.15	-0.38	-0.22	-0.29	-0.24	-0.4	-0.31	-0.11	-0.26	**-0.55**	0.11	0.04
Need for Cognition		0.4	0.59	0.6	0.3	**0.79**	0.36	0.46	0.15	0.6	0.44	0.56	0.56	**0.8**	0.21	0.41	0.62	0.54	0.13	0.12
SPQ		0.1	-0.32	-0.04	0.01	-0.04	0.07	-0.03	**0.53**	-0.28	0.04	**-0.38**	0.06	0.07	0.13	0.01	-0.09	-0.2	0.33	**0.39**
Perceptual Curiosity		0.42	0.31	0.4	0.2	0.46	0.28	**0.52**	0.27	0.21	0.44	0.28	0.41	0.48	0.16	0.35	0.31	**0.49**	0.25	0.3
TIE		0.46	0.51	0.51	0.26	**0.77**	0.36	0.54	0.29	0.54	0.51	0.47	0.5	**0.77**	0.2	0.45	0.58	0.52	0.14	0.33
LWA		0.19	-0.1	-0.06	**0.36**	-0.08	0.05	0.08	0.31	-0.23	0.15	-0.14	0	0	**0.44**	0.02	-0.09	0.02	0.26	0.22
RWA		0.03	-0.01	-0.03	**-0.38**	0.07	0.07	0.12	0.04	-0.11	0.06	-0.01	0	0.01	**-0.38**	0.17	-0.1	-0.02	-0.01	0.17
BFI																				
	Extraversion	0.16	0.4	0.39	-0.06	0.33	0.07	**0.54**	-0.02	0.19	0.22	0.41	0.35	0.26	-0.14	0.25	0.14	**0.52**	-0.04	0.21
	Agreeableness	0.22	0.02	-0.03	-0.04	0.08	**0.36**	0.08	-0.03	-0.08	0.21	0.02	0.01	0.04	-0.04	**0.38**	0.04	0.02	0.14	-0.07
	Conscientiousness	0.05	**0.31**	0.07	**-0.28**	0.1	0.2	0.16	-0.14	0.08	0.08	**0.32**	0.07	0.01	**-0.32**	0.3	0.08	0.09	-0.07	-0.01
	Neuroticism	0.1	**-0.42**	-0.19	0.1	-0.25	0.1	-0.2	**0.43**	-0.38	-0.01	**-0.47**	-0.09	-0.11	0.23	-0.06	-0.14	-0.29	**0.42**	0.18
X18 REST																				
	Realistic	-0.04	0.18	0.14	-0.1	0.28	-0.11	0.21	-0.04	**0.39**	0.05	0.2	0.1	0.21	-0.15	0.03	0.21	0.17	**-0.28**	0.18
	Investigative	0.18	0.39	0.29	0.07	**0.46**	0.16	0.34	0.16	0.58	0.25	0.38	0.27	0.45	0.03	0.24	**0.52**	0.3	-0.08	0.28
	Artistic	0.51	0.12	0.39	0.15	0.36	0.14	0.28	0.22	0.15	**0.54**	0.09	0.4	0.41	0.14	0.16	0.21	0.3	0.24	0.16
	Social	0.39	0.18	0.24	0.1	0.32	0.36	**0.36**	0.14	0.06	0.39	0.16	0.26	0.31	0.08	**0.42**	0.2	0.31	0.24	0.14
	Enterprising	0.03	**0.37**	0.24	-0.12	0.33	0	0.36	-0.08	0.25	0.11	**0.38**	0.2	0.24	-0.19	0.17	0.13	0.32	-0.18	0.16
	Conventional	0.04	0.32	0.15	-0.1	**0.33**	0.02	0.26	0.02	0.32	0.11	**0.32**	0.13	0.27	-0.14	0.15	0.21	0.2	-0.17	0.21
ICAR		-0.03	**0.12**	0.02	**0.14**	0.05	0.07	-0.03	-0.02	**0.25**	-0.03	**0.12**	0	0.06	0.13	0.03	**0.23**	0.01	-0.05	-0.05
Sandia Matrices		0.04	**0.12**	0.12	**0.15**	**0.08**	**0.16**	-0.04	0.01	**0.26**	0.03	**0.11**	**0.11**	**0.11**	**0.14**	**0.1**	**0.28**	0	0.01	**-0.08**
CAQ		0.31	0.15	**0.38**	0.21	0.28	0.16	0.18	0.3	0.2	0.3	0.11	**0.39**	0.36	0.22	0.12	0.29	0.19	0.22	0.18
	Arts	0.33	0.09	**0.35**	0.22	0.25	0.15	0.17	0.3	0.13	0.32	0.05	**0.36**	0.33	0.23	0.1	0.24	0.18	0.26	0.17
	Science	0.02	0.23	0.21	0.06	0.19	0.09	0.09	0.09	**0.26**	0.03	0.22	0.21	0.2	0.06	0.09	**0.24**	0.08	-0.04	0.1
Divergent Thinking		0.16	0.07	0.18	0.18	0.13	**0.21**	-0.03	0.15	0.16	0.12	0.04	0.2	0.2	0.2	0.12	**0.26**	0.01	0.17	-0.02

	F9.1	F9.2	F9.3	F9.4	F9.5	F9.6	F9.7	F9.8	F9.9	F10.1	F10.2	F10.3	F10.4	F10.5	F10.6	F10.7	F10.8	F10.9	F10.10
Alternative Uses	0.18	0.1	0.2	0.18	0.15	**0.21**	0	0.17	0.17	0.14	0.07	**0.21**	0.21	0.19	0.12	**0.27**	0.03	0.17	0
Consequences	0.11	0.02	0.13	0.15	0.08	**0.18**	-0.05	0.11	0.11	0.07	0	0.15	0.14	**0.16**	0.09	0.2	-0.01	0.14	-0.05

Note. Highest correlations for each external variable per factor solution are in boldface. Any positive and negative correlations with separate facets for the same external variable are in boldface. For the ICAR and Sandia Matrices, all correlations greater than | *r* | = .076 are in boldface.

Table 8

10 Facet Correlations with External Variable Scales

	F10.1	F10.2	F10.3	F10.4	F10.5	F10.6	F10.7	F10.8	F10.9	F10.10
Need for Closure	-0.22	-0.29	-0.24	-0.40	-0.31	-0.11	-0.26	**-0.55**	0.11	0.04
Need for Cognition	0.44	0.56	0.56	**0.80**	0.21	0.41	**0.62**	0.54	0.13	0.12
SPQ	0.04	**-0.38**	0.06	0.07	0.13	0.01	-0.09	-0.2	0.33	**0.39**
Perceptual Curiosity	0.44	0.28	0.41	0.48	0.16	0.35	0.31	**0.49**	0.25	0.30
TIE	0.51	0.47	0.50	**0.77**	0.20	0.45	0.58	0.52	0.14	0.33
LWA	0.15	-0.14	0	0	**0.44**	0.02	-0.09	0.02	0.26	0.22
RWA	0.06	-0.01	0	0.01	**-0.38**	0.17	-0.10	-0.02	-0.01	0.17
BFI										
Extraversion	0.22	**0.41**	0.35	0.26	-0.14	0.25	0.14	**0.52**	-0.04	0.21
Agreeableness	0.21	0.02	0.01	0.04	-0.04	**0.38**	0.04	0.02	0.14	-0.07
Conscientiousness	0.08	0.32	0.07	0.01	-0.32	0.3	0.08	0.09	-0.07	-0.01
Neuroticism	-0.01	**-0.47**	-0.09	-0.11	0.23	-0.06	-0.14	-0.29	**0.42**	0.18
X18 REST										
Realistic	0.05	0.20	0.10	**0.21**	-0.15	0.03	0.21	0.17	**-0.28**	0.18
Investigative	0.25	0.38	0.27	**0.45**	0.03	0.24	**0.52**	0.30	-0.08	0.28
Artistic	**0.54**	0.09	0.40	**0.41**	0.14	0.16	0.21	0.30	0.24	0.16
Social	**0.39**	0.16	0.26	0.31	0.08	**0.42**	0.2	0.31	0.24	0.14
Enterprising	0.11	**0.38**	0.20	0.24	-0.19	0.17	0.13	**0.32**	-0.18	0.16
Conventional	0.11	**0.32**	0.13	**0.27**	-0.14	0.15	0.21	0.2	-0.17	0.21
ICAR	-0.03	0.12	0	0.06	0.13	0.03	**0.23**	0.01	-0.05	-0.05
Sandia Matrices	0.03	0.11	0.11	0.11	0.14	0.1	**0.28**	0	0.01	-0.08
CAQ	0.30	0.11	**0.39**	**0.36**	0.22	0.12	0.29	0.19	0.22	0.18
Arts	0.32	0.05	**0.36**	**0.33**	0.23	0.10	0.24	0.18	0.26	0.17
Science	0.03	0.22	**0.21**	0.20	0.06	0.09	**0.24**	0.08	-0.04	0.10
Divergent Thinking	0.12	0.04	0.20	0.20	0.20	0.12	**0.26**	0.01	0.17	-0.02

	F10.1	F10.2	F10.3	F10.4	F10.5	F10.6	F10.7	F10.8	F10.9	F10.10
Alternative Uses	0.14	0.07	**0.21**	0.21	0.19	0.12	**0.27**	0.03	0.17	0
Consequences	0.07	0	0.15	0.14	**0.16**	0.09	0.20	-0.01	0.14	-0.05

Note. Highest correlations for each external variable per factor solution are in boldface. Any positive and negative correlations with separate facets for the same external variable are in boldface. For the ICAR and Sandia Matrices, all correlations greater than | *r* | = .076 are in boldface.

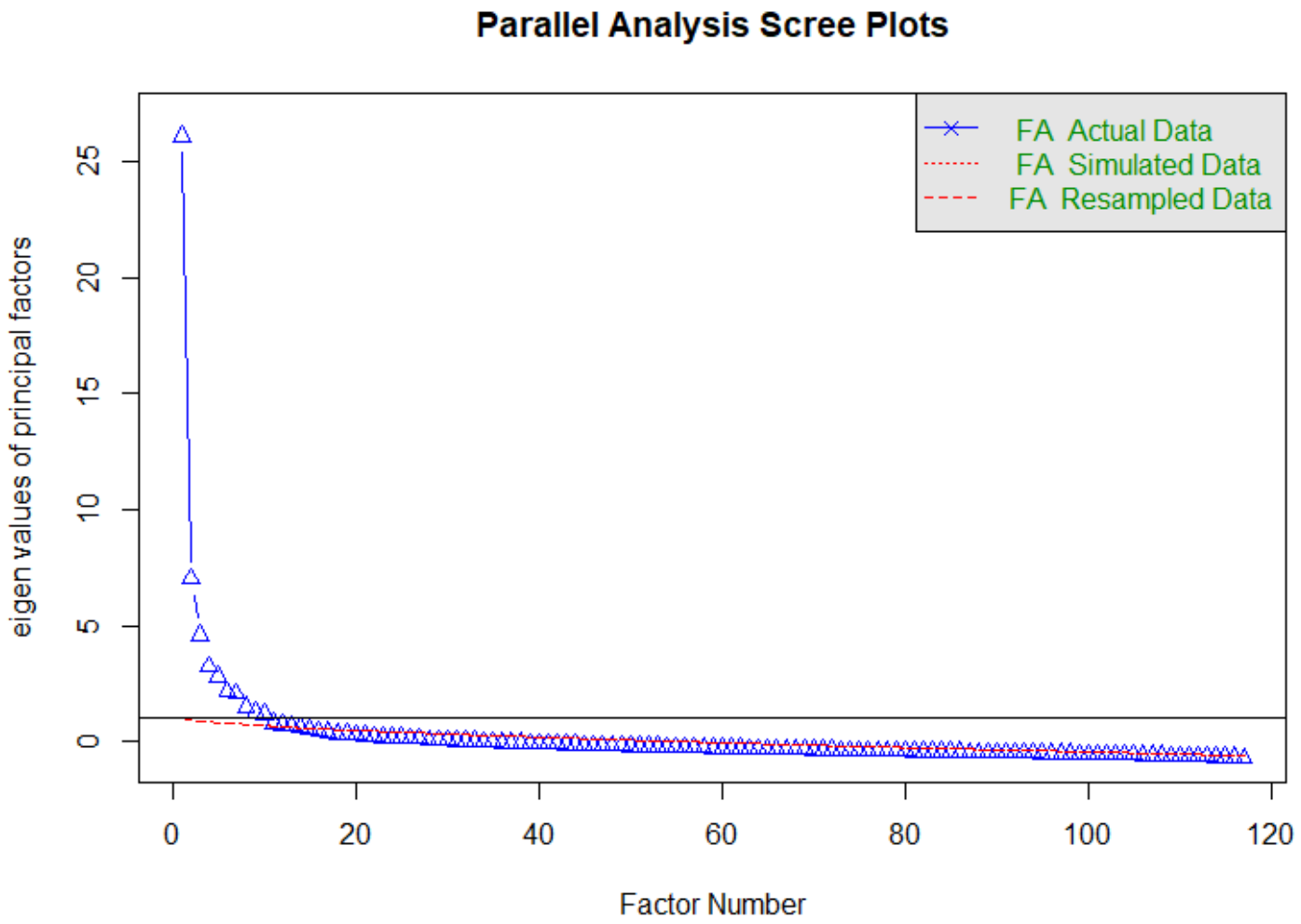

Figure 1

Openness Scree and Parallel Analysis Plot

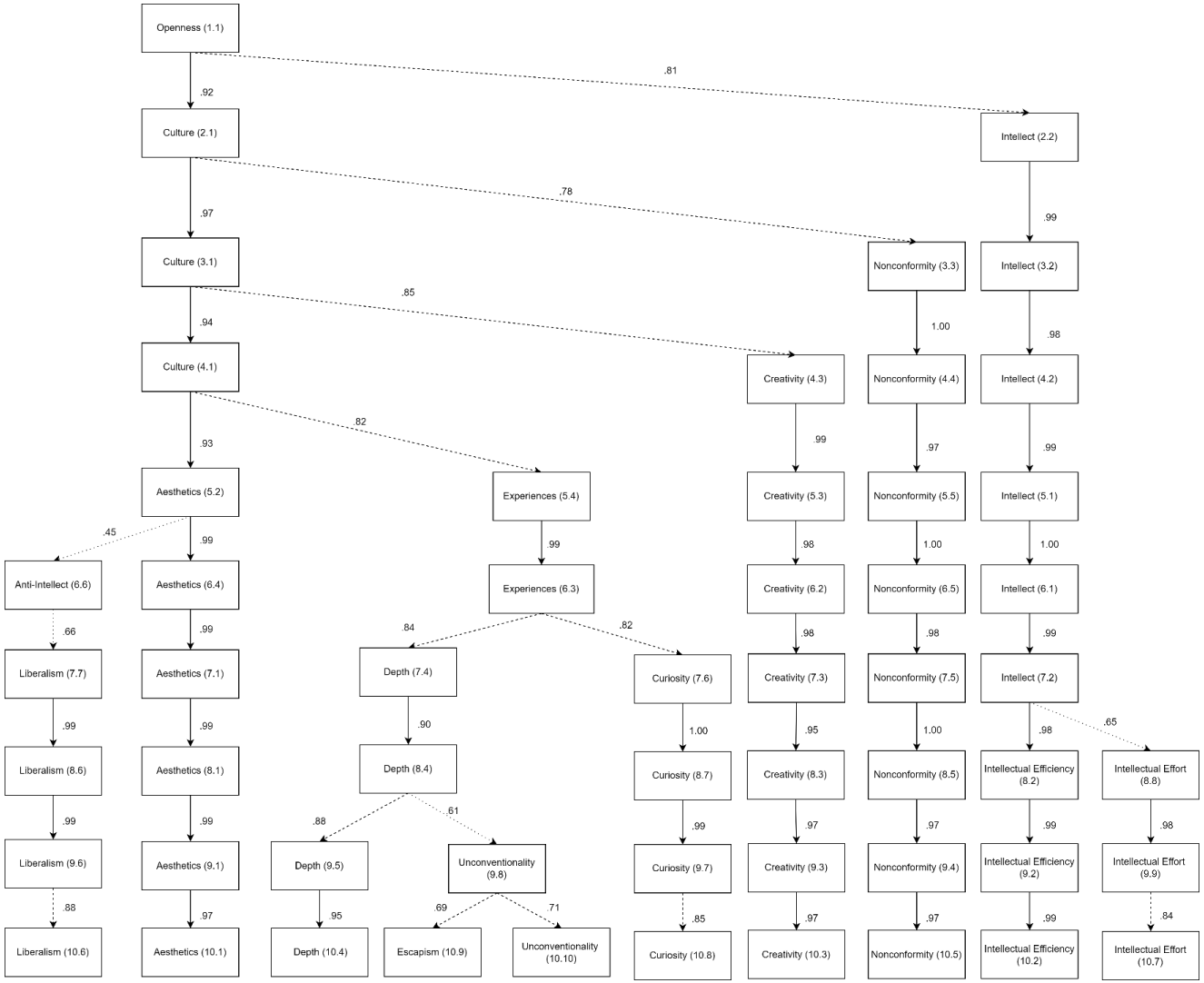

Figure 2

Hierarchical Structure of Openness Domain

CHAPTER 5

DISCUSSION

The present study clarified the structure of Openness by applying the Bass-Ackwards approach on a diverse set of personality measures. Results from the identified factor structure and external correlations provided three key takeaways. First, the identified factor structure indicated there were two primary aspects of Openness consistent with prior research: Culture and Intellect. Whereas Intellect is a generally homogeneous aspect that only unfolds into two facets of Openness in the final 10-factor solution, Culture is a heterogeneous aspect that unfolds into eight distinct facets. The aspects of Culture and Intellect derived here are consistent with previous models of Openness (DeYoung et al., 2007; Woo et al., 2014a). Second, the identified factor structure indicates there are 10 lower-level facets that emerge from Openness. Each measure of Openness contributed unique content to these 10 facets. However, no single measure covered all 10 facets, indicating that measuring the full range of content in Openness can only be captured by drawing from multiple existing measures. Third, the 10 facets of Openness showed unique patterns of correlations with external variables, further indicating their unique contribution to the general Openness trait. In the following sections, I discuss the theoretical implications of the identified internal structure of the examined Openness measures and the derived factors' relationships to external variables, and review future directions for research on this complex trait.

Internal Structure of Openness

According to DeYoung et al. (2007), Openness is composed of two aspects: Openness and Intellect. The aspect of openness is denoted by imagination, fantasy, and an appreciation of aesthetics aspect, whereas the aspect of intellect describes qualities such as ingenuity and ability to develop ideas. The present research provides further evidence of this structure, identifying Culture and Intellect at the two-factor level. The derived aspects' factor scores correlated strongly with the DeYoung et al's BFAS aspects, such that Intellect correlated strongly with the BFAS Intellect aspect, (r = .90, p < .001) and Culture correlated strongly with the BFAS Openness facet (r = .77, p = .063). The Christensen et al. (2018) proposed the existence of three aspects of Openness based on the content of 10 network-identified facets: Intellect, Open-mindedness, and Experiencing. In the current factor structure, the third factor to emerge was Nonconformity, which does not align with Christensen et al.'s (2018) proposed aspects. However, the facets that emerge from the identified Culture aspect covers essentially the same facets Christensen et al.'s proposed aspects of Open-mindedness and Experiencing, whereas the facets of the Intellect aspect covers the same facets Christensen et al.'s proposed aspect of Intellect. The only exception is that Christensen et al. assign the facet of Intellectual Interests to the aspect of Intellect, whereas the comparable facet of Depth emerges from the Culture aspect in the identified factor structure. The mismatch in identified aspects between the present study and Christensen et al.'s psychometric network-identified facets may be due to my inclusion of two additional Openness measures (FIFFM, IPIP), as well as my selected analytic approach of examining the domain's dimensionality instead of examining the psychometric network. In contrast, the Culture and Intellect aspects are consistent with previous dimensional approaches to examining the structure of Openness (DeYoung et al., 2007; Woo et al., 2014a).

In the present study, the trait domain of Openness unfolded into 10 unique facets at the lowest level. Eight facets emerged from the aspect of Culture, which I define as: (1) *Aesthetics* is the tendency to enjoy art and beauty; (2) *Creativity* is one's perception of their own inventiveness or ingenuity; (3) *Depth* describes a tendency towards contemplating philosophical ideas; (4) *Nonconformity* captures a rejection of traditional norms; (5) *Liberalism* is an appreciation of diverse ideas and cultures; (6) *Curiosity* reflects an interest in seeking new experiences; (7) *Escapism* is a tendency towards feeling emotions deeply and fantasizing; finally, (8) *Unconventionality* involves engaging in eccentric or normatively "odd" behaviors. The distinction across these eight facets demonstrates and confirms past findings regarding the heterogeneity of the Culture aspect. Only two facets emerged from the aspect of Intellect: (1) *Intellectual Efficiency* reflects persons' perceptions of their capacity for processing information; whereas (2) *Intellectual Effort* is one's interest in furthering their knowledge and studying complex topics.

The content of the facets in the Openness scales were well-represented across the 10 identified facets. These 10 facets resemble Christensen et al.'s (2018) 10 network-identified facets (see Table 9). However, no individual Openness scale captured the full 10 facets derived here. Similar to Christensen et al.'s (2018) facets, the Openness Inventory (Woo et al., 2014a) showed the broadest coverage across the 10 facets (see Table 4). However, this measure did not capture all of the dimensions that emerged here, with facets yielding lower correlations with Escapism and Unconventionality compared to the other identified facets. With Escapism, the Openness Inventory facet relationships ranged from Intellectual Efficiency (r = -.11, p = .304) to Aesthetics and Depth (r = .44, p < .001). With Unconventionality, the Openness Inventory facet relationships ranged from Intellectual Efficiency (r = -.08, p = 1.00) to Curiosity (r = .24, p <

.001). When considering Christensen et al.'s structure, the Openness Inventory similarly captured all network-identified facets except for Fantasy. Therefore, the Openness Inventory's coverage of Christensen et al.'s facets is consistent with its weaker coverage of the Escapism facet. These results suggest that each of the past measures of Openness examined here are only capable of capturing unique subsets of our identified facets, and therefore do not possess full content coverage of the Openness domain.

Openness Factors' Relation to External Variables

Prior research established a foundation for the structure of Openness across different methods (Christensen et al., 2018; Woo et al., 2014a). In Woo et al.'s (2014a) study, Openness was composed of two aspects, each with three specific facets. Woo et al.'s structure informed the development of the Openness Inventory, which both Christensen et al. (2018) and the present study showed has the widest coverage across 10 facets. To further refine our understanding of these facets, I discuss findings regarding their relationships with external variables (see Table 8).

Variables Adjacent to Openness. The majority of the identified facets were associated with constructs adjacent to Openness, such as Need for Cognition, Perceptual Curiosity, and TIE. Need for Cognition was strongly associated with Depth and Intellectual Effort, and showed moderate associations with Culture, Intellect, Creativity, Liberalism, and Curiosity. The TIE demonstrated a similar pattern of correlations, such that Depth and Intellectual Effort were the most strongly associated with the trait. For Perceptual Curiosity, the facets that showed the strongest associations were Depth and Curiosity. Conversely, Need for Closure demonstrated strong negative associations with Depth and Curiosity, and a small positive association with Escapism. The SPQ showed positive associations with Escapism and Unconventionality, and negative associations with the facet of Intellectual Efficiency. This pattern of correlations aligns

with previous findings showing that Schizotypy is positively associated with items related to Fantasy but often shows a null or negative relationship with Intellect (Bucher et al., 2021; DeYoung et al., 2012). Notably, my derived distinction between Intellectual Efficiency and Intellectual Effort could explain mixed findings regarding the relation between Schizotypy and Intellect.

Cognitive Ability. The present research also examined how Openness is related to cognitive ability. Cognitive ability was measured through the ICAR and the Sandia Matrices. Specifically, the ICAR measured crystallized intelligence, which involves cognitive ability focusing on knowledge and skills gathered over time. In contrast, the Sandia Matrices measure fluid intelligence, which is cognitive ability attributable to genetics (DeYoung, 2019). The ICAR showed a small positive association with Intellectual Efficiency, Nonconformity, and Intellectual Effort. The Sandia Matrices demonstrated a similar pattern of small positive associations with Intellectual Efficiency, Nonconformity, and Intellectual Effort. However, the Sandia Matrices was also positively associated with Creativity, Depth, and Liberalism. Intellectual Effort showed the highest association with both the ICAR and the Sandia Matrices. DeYoung noted that Openness is more strongly associated with crystallized instead of fluid intelligence, as one's curiosity and interest in learning could motivate their educational pursuits. However, the identified facets of Openness showed stronger associations with the Sandia Matrices compared to the ICAR. One possible explanation is that specific facets may show distinctions in how they associate with fluid and crystallized intelligence, such as creativity's unique relationship with fluid intelligence (Harris et al., 2019). When evaluating the effect sizes of these relationships, it is important to note that correlations between cognitive ability tests and personality measures are lower compared to correlations between other self-report measures and personality. DeYoung

(2019) observes that correlations between Intellect and cognitive ability can achieve a higher moderate correlation of .35, whereas Openness often ranges between .15 to .20. Similarly, Harris et al. (2019) found a correlation of .08 between Intellect and Fluid Intelligence. Therefore, the range of correlations between cognitive ability and Openness are within expectations set by previous research.

Creativity. Another key construct to consider in the context of Openness is creativity. In this study, creativity was assessed through convergent and divergent thinking. Specifically, convergent thinking was measured using the CAQ, and divergent thinking was measured using the Alternative Uses and Consequences tasks. The CAQ was divided into total creative achievement, creative achievement in arts, and creative achievement in science. Total creative achievement showed moderate associations with Aesthetics, Creativity, Depth, and Intellectual Effort. Creative achievement in the arts showed a similar pattern of correlations with Aesthetics, Creativity, and Depth, but was also associated with Escapism. Finally, creative achievement in science showed small correlations with Intellectual Efficiency, Creativity, Depth, and Intellectual Effort. For convergent thinking, Openness facets showed a stronger relationship with creative achievement in the arts compared to science. However, certain differences in facets trended in the expected direction, such as Aesthetics only being associated with achievement in the arts, whereas Intellectual Efficiency was only associated with achievement in science. These findings are consistent with Harris et al.'s (2019) finding that that the aspect of Aesthetic Openness was associated with the achievement in the arts and the aspect of Intellect was associated with achievement in science. The divergent thinking task of Alternative Uses showed small associations with Creativity, Depth, and Intellectual Effort. In comparison, the Consequences task showed small associations with Creativity, Nonconformity, and Intellectual Effort. The facet

of Intellectual Effort showed the strongest correlation with both divergent thinking tasks. Notably, the relationship between Openness facets and divergent thinking was stronger for the Alternative Uses task than the Consequences task.

Relations with Other FFM Traits. Openness facets also varied in associations with other FFM traits. Extraversion was moderately associated with Intellectual Efficiency and Curiosity, and moderately associated with Creativity. Agreeableness showed a moderate association with Liberalism and a small association with Aesthetics. Conscientiousness was moderately positively associated with Intellectual Efficiency and Liberalism, but also showed a moderate negative association with Nonconformity. Finally, Neuroticism showed a moderate negative association with Intellectual Efficiency, and a moderate positive association with Escapism. Notably, the facet of Escapism was more strongly associated with Neuroticism than any other external variable. The facets of Aesthetics, Depth, Intellectual Interests, and Unconventionality showed stronger relationships with other constructs than with the other FFM traits, such as the RIASEC interests. Within the domain of Openness, Culture is a highly heterogeneous aspect. Therefore, a key question will be to identify whether the 10 facets are part of the Openness domain, or if they are more accurately described as interests or outcomes. Examining the content validity of Openness facets will require a theoretically-informed, content-focused approach for reviewing each whether each facet belongs to the domain.

Future Directions

The present study had a number of strengths, such as a large sample size, diverse set of external measures, and implementation of the Bass-Ackwards approach at the item-level. There are a number of key future directions that can supplement the present study's findings.

First, the identified factor structure yielded 10 unique facets of Openness. Although facets from prior models of Openness were represented in the identified factor structure, no single measure fully captured all 10 facets. Woo et al.'s (2014a) Openness Inventory represented the most facets, but showed weaker associations with Escapism and Unconventionality. Further, correlations between specific facets and other FFM traits were comparatively weaker than with other constructs. Therefore, future research should evaluate the content validity of the identified 10 facets. Reviewing the content validity can inform which facets align more strongly with other constructs compared to Openness, and therefore justify eliminating them from the trait. Furthermore, the results of a content validity analysis could inform the scale development of a new Openness measure that covers all identified facets.

Second, the relationship between Openness and cognitive ability should examined in greater detail. In the present study, Openness facets were positively associated with both fluid and crystallized measures of cognitive ability. However, the identified Openness facets showed stronger correlations with fluid intelligence compared to crystallized intelligence. This finding is contrary to established research on the relationship between Openness and cognitive ability (DeYoung, 2019). Further, Harris et al. (2019) noted that intelligence and Openness can interact to produce a curvilinear effect on creative achievement. Therefore, future research should examine the relationship between the structure of Openness and cognitive ability in greater detail, as there is a dearth of research on how specific facets are associated with cognitive ability and adjacent constructs.

Third, a recurring question in personality research is the generalizability of domains and facets. Personality research indicates that traits shows generalizability across cultures (Saucier & Ostendorf, 1999; Woo et al., 2014a), as well as measurement invariance across SES (Hughes et

al., 2021). Hughes et al. (2021) noted that specific Openness items related to appreciation of aesthetics and preference for routine work were noninvariant across SES indicators. Therefore, future research should examine the generalizability and measurement invariance of the identified Openness facets across demographic characteristics.

Table 9

Comparison Between Christensen et al.'s (2018) Psychometric Network Facets of Openness and Current Bass-Ackwards Facets

Christensen Openness Facets	Pearman (2022) Bass-Ackwards Openness Facets
Aesthetic Appreciation	Aesthetics (10.1)
Diversity	Liberalism (10.6)
Fantasy	Escapism (10.9)
Imaginative	Creativity (10.3)
Intellectual Curiosity	Intellectual Effort (10.7)
Intellectual Interests	Depth (10.4)
Non-Traditionalism	Nonconformity (10.5)
Openness to Emotions	Escapism (10.9)
Self-Assessed Intelligence	Intellect (10.2)
Variety-Seeking	Curiosity (10.8) and Unconventionality (10.10)

CHAPTER 6

CONCLUSION

The present study shows the unfolding of Openness across multiple factor solutions, providing insight into how different factors emerge into a lower-order structure with specific facets. It also establishes construct validity by examining how Openness facets relate to a diverse set of external variables, such as other FFM domains and cognitive ability measures. The identified structure of Openness showed strong content overlap with all facets in the incorporated Openness measures, along with previous studies of the structure of Openness that employed distinct methods and measures. These facets showed divergent correlations across important external variables, thereby demonstrating the importance of how measurement specificity can lead to a more informative understanding of personality and individual differences more broadly (Crowe et al., 2017; Saucier & Iurino, 2020). Overall, this research helps clarify the structure of Openness and establish the construct validity of the domain's specific facets.

References

Ackerman, P. L. (1997). Personality, Self-Concept, Interests, and Intelligence: Which Construct Doesn't Fit? *Journal of Personality*, *65*(2), 171–205. https://doi.org/10.1111/j.1467-6494.1997.tb00952.x

Ackerman, P. L., & Heggestad, E. D. (1997). Intelligence, personality, and interests: Evidence for overlapping traits. *Psychological Bulletin*, *121*(2), 219–245. https://doi.org/10.1037/0033-2909.121.2.219

Ambiel, R. A. M., Hauck-Filho, N., Barros, L. de O., Martins, G. H., Abrahams, L., & Fruyt, F. D. (2018). 18REST: A short RIASEC-interest measure for large-scale educational and vocational assessment. *Psicologia: Reflexão e Crítica*, *31*. http://www.scielo.br/j/prc/a/j8dnMMQM3VdKW3dSbZTYPMN/abstract/?lang=en

Ashton, M. C., Lee, K., & de Vries, R. E. (2014). The HEXACO Honesty-Humility, Agreeableness, and Emotionality Factors: A Review of Research and Theory. *Personality and Social Psychology Review*, *18*(2), 139–152. https://doi.org/10.1177/1088868314523838

Arteche, A., Chamorro-Premuzic, T., Ackerman, P., & Furnham, A. (2009). Typical intellectual engagement as a byproduct of openness, learning approaches, and self-assessed intelligence. *Educational Psychology*, *29*(3), 357-367.

Bainbridge, T. F., Ludeke, S. G., & Smillie, L. D. (2022). Evaluating the Big Five as an organizing framework for commonly used psychological trait scales. *Journal of Personality and Social Psychology*, *122*(4), 749–777. https://doi.org/10.1037/pspp0000395

Barrick, M. R., Mount, M. K., & Gupta, R. (2003). Meta-analysis of the relationship between the five-factor model of personality and Holland's occupational types. *Personnel psychology*, *56*(1), 45-74.

Bucher, M. A., & Samuel, D. B. (2021). Mapping a hierarchical dimensional structure of high experiential permeability: A bass-ackward approach to linking positive schizotypy and openness to experience. *Personality Disorders: Theory, Research, and Treatment*.

Buhrmester, M., Kwang, T., & Gosling, S. D. (2016). *Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality data?* (p. 139). American Psychological Association. https://doi.org/10.1037/14805-009

Cacioppo, J. T., Petty, R. E., & Feng Kao, C. (1984). The Efficient Assessment of Need for Cognition. *Journal of Personality Assessment*, *48*(3), 306–307. https://doi.org/10.1207/s15327752jpa4803_13

Cheung, J. H., Burns, D. K., Sinclair, R. R., & Sliter, M. (2017). Amazon Mechanical Turk in Organizational Psychology: An Evaluation and Practical Recommendations. *Journal of Business and Psychology*, *32*(4), 347–361. https://doi.org/10.1007/s10869-016-9458-5

Christensen, A. P., Cotter, K. N., & Silvia, P. J. (2018). Reopening Openness to Experience: A Network Analysis of Four Openness to Experience Inventories. *Journal of Personality Assessment*, *101*(6), 574–588. https://doi.org/10.1080/00223891.2018.1467428

Cohen, A. S., Matthews, R. A., Najolia, G. M., & Brown, L. A. (2010). Toward a More Psychometrically Sound Brief Measure of Schizotypal Traits: Introducing the SPQ-Brief Revised. *Journal of Personality Disorders*, *24*(4), 516–537. https://doi.org/10.1521/pedi.2010.24.4.516

Collins, R. P., Litman, J. A., & Spielberger, C. D. (2004). The measurement of perceptual curiosity. *Personality and Individual Differences*, *36*(5), 1127–1141. https://doi.org/10.1016/S0191-8869(03)00205-8

Condon, D. M., & Revelle, W. (2014). The international cognitive ability resource: Development and initial validation of a public-domain measure. *Intelligence*, *43*, 52–64. https://doi.org/10.1016/j.intell.2014.01.004

Connelly, B. S., Ones, D. S., & Chernyshenko, O. S. (2014). Introducing the Special Section on Openness to Experience: Review of Openness Taxonomies, Measurement, and Nomological Net. *Journal of Personality Assessment*, *96*(1), 1–16. https://doi.org/10.1080/00223891.2013.830620

Crowe, M. L., Lynam, D. R., & Miller, J. D. (2018). Uncovering the structure of agreeableness from self-report measures. *Journal of Personality*, *86*(5), 771–787. https://doi.org/10.1111/jopy.12358

DeSimone, J. A., & Harms, P. D. (2018). Dirty Data: The Effects of Screening Respondents Who Provide Low-Quality Data in Survey Research. *Journal of Business and Psychology*, *33*(5), 559–577. https://doi.org/10.1007/s10869-017-9514-9

DeYoung, C. G. (2006). Higher-order factors of the Big Five in a multi-informant sample. *Journal of Personality and Social Psychology*, *91*(6), 1138–1151. https://doi.org/10.1037/0022-3514.91.6.1138

DeYoung, C. G. (2014). A cybernetic big five theory for personality psychology. *Personality and Individual Differences*, *60*, S18. https://doi.org/10.1016/j.paid.2013.07.381

DeYoung, C. G. (2019). Intelligence and Personality. In R. J. Sternberg (Ed.), *The Cambridge Handbook of Intelligence* (2nd ed., pp. 1011–1047). Cambridge University Press. https://doi.org/10.1017/9781108770422.043

DeYoung, C. G., Grazioplene, R. G., & Peterson, J. B. (2012). From madness to genius: The Openness/Intellect trait domain as a paradoxical simplex. *Journal of Research in Personality*, *46*(1), 63-78.

DeYoung, C. G., Quilty, L. C., & Peterson, J. B. (2007). Between facets and domains: 10 aspects of the Big Five. *Journal of Personality and Social Psychology*, *93*(5), 880–896. https://doi.org/10.1037/0022-3514.93.5.880

DeYoung, C. G., Quilty, L. C., Peterson, J. B., & Gray, J. R. (2014). Openness to Experience, Intellect, and Cognitive Ability. *Journal of Personality Assessment*, *96*(1), 46–52. https://doi.org/10.1080/00223891.2013.806327

Digman, J. M. (1997). Higher-order factors of the Big Five. *Journal of personality and social psychology*, *73*(6), 1246.

Peer, E., Rothschild, D. M., Evernden, Z., Gordon, A., & Damer, E. (2021). Data quality of platforms and panels for online behavioral research. *Behavior Research Methods*, 1-20.

Ferguson, E. (1999). A Facet and Factor Analysis of Typical Intellectual Engagement (TIE): Associations with Locus of Control and the Five Factor Model of Personality. *Social Behavior and Personality: An International Journal*, *27*(6), 545–561. https://doi.org/10.2224/sbp.1999.27.6.545

Goff, M., & Ackerman, P. L. (1992). Personality-intelligence relations: Assessment of typical intellectual engagement. *Journal of Educational Psychology*, *84*(4), 537–552. https://doi.org/10.1037/0022-0663.84.4.537

Goldberg, L. R. (2006). Doing it all Bass-Ackwards: The development of hierarchical factor structures from the top down. *Journal of Research in Personality*, *40*(4), 347–358. https://doi.org/10.1016/j.jrp.2006.01.001

Goldberg, L. R., Johnson, J. A., Eber, H. W., Hogan, R., Ashton, M. C., Cloninger, C. R., & Gough, H. G. (2006). The international personality item pool and the future of public-domain personality measures. *Journal of Research in Personality*, *40*(1), 84–96. https://doi.org/10.1016/j.jrp.2005.08.007

Griffin, B., & Hesketh, B. (2004). Why Openness to Experience is not a Good Predictor of Job Performance. *International Journal of Selection and Assessment*, *12*(3), 243–251. https://doi.org/10.1111/j.0965-075X.2004.278_1.x

Harris, A. M., Williamson, R. L., & Carter, N. T. (2019). A conditional threshold hypothesis for creative achievement: On the interaction between intelligence and openness. *Psychology of Aesthetics, Creativity, and the Arts*, *13*(3), 322–337. https://doi.org/10.1037/aca0000182

Hughes, B. T., Costello, C. K., Pearman, J., Razavi, P., Bedford-Petersen, C., Ludwig, R. M., & Srivastava, S. (2021). The Big Five Across Socioeconomic Status: Measurement Invariance, Relationships, and Age Trends. *Collabra: Psychology*, *7*(1), 24431.

John, O. P., Donahue, E. M., & Kentle, R. L. (1991). The Big Five Inventory—Versions 4a and 54. Berkeley, CA: University of California, Berkeley, Institute of Personality and Social Research

John, O.P., & Srivastava, S. (1999). The big five trait taxonomy: History, measurement, and theoretical perspectives. In L.A. Pervin & O.P. John (Eds.), *Handbook of personality: Theory and research* (pp. 102-138). New York: Guilford Press.

Judge, T. A., Rodell, J. B., Klinger, R. L., Simon, L. S., & Crawford, E. R. (2013). Hierarchical representations of the five-factor model of personality in predicting job performance: Integrating three organizing frameworks with two theoretical perspectives. *Journal of Applied Psychology*, *98*(6), 875–925. https://doi.org/10.1037/a0033901

Knowles, E. S. (1988). Item context effects on personality scales: Measuring changes the measure. *Journal of personality and social psychology*, *55*(2), 312.

Lee, K., & Ashton, M. C. (2006). Further assessment of the HEXACO Personality Inventory: Two new facet scales and an observer report form. *Psychological Assessment*, *18*(2), 182–191. https://doi.org/10.1037/1040-3590.18.2.182

Lynam, D. R., Gaughan, E. T., Miller, J. D., Miller, D. J., Mullins-Sweatt, S., & Widiger, T. A. (2011). Assessing the basic traits associated with psychopathy: Development and validation of the Elemental Psychopathy Assessment. *Psychological Assessment*, *23*(1), 108–124. https://doi.org/10.1037/a0021146

Maples-Keller, J., Guan, L., Carter, N., & Miller, J. (2014). A Test of the International Personality Item Pool Representation of the Revised NEO Personality Inventory and Development of a 120-Item IPIP-Based Measure of the Five-Factor Model. *Psychological Assessment*, *26*. https://doi.org/10.1037/pas0000004

McCrae, R. R. (1990). Traits and trait names: How well is Openness represented in natural languages? *European Journal of Personality*, *4*(2), 119–129. https://doi.org/10.1002/per.2410040205

McCrae, R. R., & Costa Jr, P. T. (1985). Openness to experience. *Perspectives in personality*, *1*, 145-172.

McCrae, R. R., & Sutin, A. R. (2009). Openness to experience. In *Handbook of individual differences in social behavior* (pp. 257–273). The Guilford Press.

Miller, J. D., Crowe, M., Weiss, B., Maples-Keller, J. L., & Lynam, D. R. (2017). Using online, crowdsourcing platforms for data collection in personality disorder research: The example of Amazon's Mechanical Turk. *Personality Disorders: Theory, Research, and Treatment*, *8*(1), 26–34. https://doi.org/10.1037/per0000191

Ones, D. S., & Viswesvaran, C. (1996). Bandwidth–fidelity dilemma in personality measurement for personnel selection. *Journal of Organizational Behavior*, *17*(6), 609–626. https://doi.org/10.1002/(SICI)1099-1379(199611)17:6<609::AID-JOB1828>3.0.CO;2-K

Roets, A., & Van Hiel, A. (2011). Item selection and validation of a brief, 15-item version of the Need for Closure Scale. *Personality and Individual Differences*, *50*(1), 90–94. https://doi.org/10.1016/j.paid.2010.09.004

Saucier, G. (1992). Openness versus intellect: Much ado about nothing? *European Journal of Personality*, *6*(5), 381–386. https://doi.org/10.1002/per.2410060506

Saucier, G., & Iurino, K. (2019). High-dimensionality personality structure in the natural language: Further analyses of classic sets of English-language trait-adjectives. *Journal of Personality and Social Psychology*. https://doi.org/10.1037/pspp0000273

Saucier, G., & Ostendorf, F. (1999). Hierarchical subcomponents of the Big Five personality factors: A cross-language replication. *Journal of Personality and Social Psychology*, *76*(4), 613–627. https://doi.org/10.1037/0022-3514.76.4.613

Schell, K. L., & Oswald, F. L. (2013). Item grouping and item randomization in personality measurement. *Personality and Individual Differences*, *55*(3), 317-321.

Silvia, P. J., Nusbaum, E. C., Berg, C., Martin, C., & O'Connor, A. (2009). Openness to experience, plasticity, and creativity: Exploring lower-order, high-order, and interactive effects. *Journal of Research in Personality*, *43*(6), 1087–1090. https://doi.org/10.1016/j.jrp.2009.04.015

Simms, E. E. (n.d.). *Assessment of the facets of the Five Factor Model: Further development and validation of a new personality measure* [Ph.D., The University of Iowa]. Retrieved March 28, 2022, from https://www.proquest.com/docview/304901508/abstract/3C0E1D1691134393PQ/1

Soto, C. J., & John, O. P. (2009). Ten facet scales for the Big Five Inventory: Convergence with NEO PI-R facets, self-peer agreement, and discriminant validity. *Journal of Research in Personality*, *43*(1), 84–90. https://doi.org/10.1016/j.jrp.2008.10.002

Soto, C. J., & John, O. P. (2017). The next Big Five Inventory (BFI-2): Developing and assessing a hierarchical model with 15 facets to enhance bandwidth, fidelity, and predictive power. *Journal of Personality and Social Psychology*, *113*(1), 117–143. https://doi.org/10.1037/pspp0000096

Stanek, K. (2014). *Meta-Analyses of Personality and Cognitive Ability*. http://conservancy.umn.edu/handle/11299/201107

Súilleabháin, P. Ó. Ó., Howard, S., & Hughes, B. (2018). Openness to experience and adapting to change: Cardiovascular stress habituation to change in acute stress exposure. *Psychophysiology*. https://doi.org/10.1111/psyp.13023

Williams, P. G., Rau, H. K., Cribbet, M. R., & Gunn, H. E. (2009). Openness to Experience and stress regulation. *Journal of Research in Personality*, *43*(5), 777–784. https://doi.org/10.1016/j.jrp.2009.06.003

Woo, S. E., Chernyshenko, O. S., Longley, A., Zhang, Z.-X., Chiu, C.-Y., & Stark, S. E. (2014a). Openness to Experience: Its Lower Level Structure, Measurement, and Cross-Cultural Equivalence. *Journal of Personality Assessment*, *96*(1), 29–45. https://doi.org/10.1080/00223891.2013.806328

Woo, S. E., Chernyshenko, O. S., Stark, S. E., & Conz, G. (2014b). Validity of Six Openness Facets in Predicting Work Behaviors: A Meta-Analysis. *Journal of Personality Assessment*, *96*(1), 76–86. https://doi.org/10.1080/00223891.2013.806329