



# Linking personality trait-facets and value-domains

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*Previous research has established that personality traits and personal values are intertwined constructs reporting sizable correlations. However, few previous studies have examined facet level traits in relation to values. The Big Five model contains lower-order facets representing specific contents of each trait domain. To this end, we provide a correlational map of 30 facets (IPIP-NEO-120) and Schwartz's 10 values using an Mturk sample (N = 406). Results show moderate to strong correlations at the facet-level, indicating construct overlap between trait-facets and values. For example, the link between trait-facet excitement-seeking and the value-domain stimulation was  $r = .91$ . We also show that moderation analyses of trait-value relations result in very few significant interaction-effects with sex, age, and socioeconomic status. We discuss that traits at facet-level may be beneficial for a better understanding of the robust links between personality traits and values.*

**Keywords:** personality, Big Five, facets, values

The relationship between personality traits and personal values is well-established within personality psychology (Parks-Leduc et al., 2015). For instance, there is a replicable overlap between the Big Five factor agreeableness and Schwartz's value-domains benevolence and between the Big Five factor extraversion and power values (Kajonius et al., 2015). Interestingly, the Big Five factors can be defined into lower-order facets representing specific contents of traits (Möttus, 2016), and facets often explain predictive variance better than the Big Five factors do (Stewart et al., 2022). Very few studies have examined these relations at the lower Big Five facet level (see Anglim et al., 2017; Roccas et al., 2002). To our knowledge, in relation to values, no studies have used particularly the publicly available facets in the personality instrument IPIP-NEO-120 (see Kajonius & Johnson, 2019). There is an ongoing call for attention to trait-analysis at the facet-level as a way of improving the predictive validity in personality studies (Möttus & Rozgonjuk, 2021; Ziegler & Bäckström, 2016). The present study aims to provide a correlational map of the relationships between Big Five trait-facets and values. In addition, the present study also aims to explore whether these relationships are moderated by demography, i.e., sex, age, and socioeconomic status.

## Personality traits and values

One of the most established and used models of personality is the Big Five model which has been found effective in a multitude of samples, cultures, and instruments (Goldberg et al., 2006). The Big Five refer to recurrent individual differences summarized into five trait domains, with example-items describing a typical person high on the trait: Neuroti-

cism (negative and volatile), extraversion (positive and social), openness (curious and intellectual), agreeableness (warm and polite), and conscientiousness (orderly and industrious) (DeYoung et al., 2007). Personality traits are partially genetically based, and they are relatively stable across the individual lifespan (Polderman et al., 2015), and even across many cultures (Kajonius & Mac Giolla, 2017). They predict important life outcomes, from childhood to old age, such as divorce or even mortality (see longitudinal meta-analysis by Roberts et al., 2007).

Independent of personality trait research, Schwartz (1992) has developed a model of human values. Values are defined as general guiding beliefs, pertaining to desirable goals (Schwartz, 1992), with 10 personal value-domains in various samples and cultures (Schwartz, 2012). These value-domains have been linked to a host of relevant life outcomes such as occupational careers (Arieli et al., 2020) and political ideology (Piurko et al., 2011). The value-domains are often presented in the form of a circumplex configuration, constituted by the two dimension-axes of self-transcendence and openness to change (Figure 1). In this model, the 10 value-domains are seen, with example-items describing the high end: security (social stability, moderation), tradition (respect for customs), conformity (politeness, respecting norms), benevolence (loyalty, dependability), universalism (tolerance, peace), self-direction (independence, mastery), stimulation (novelty, challenge), hedonism (gratification, pleasure), achievement (competence, striving), and power (status, prestige). See Schwartz (2012) for more in-depth definitions.

Traits describe what people are disposed to do while values describe what principles people are guided by (Roccas et al., 2002). Longitudinal studies indicate that both traits and values tend to be relatively stable, and that traits predict future values better than values predict traits (Vecchione et al., 2019). Studies linking traits and values can be exemplified with two meta-analyses (Fischer & Boer,

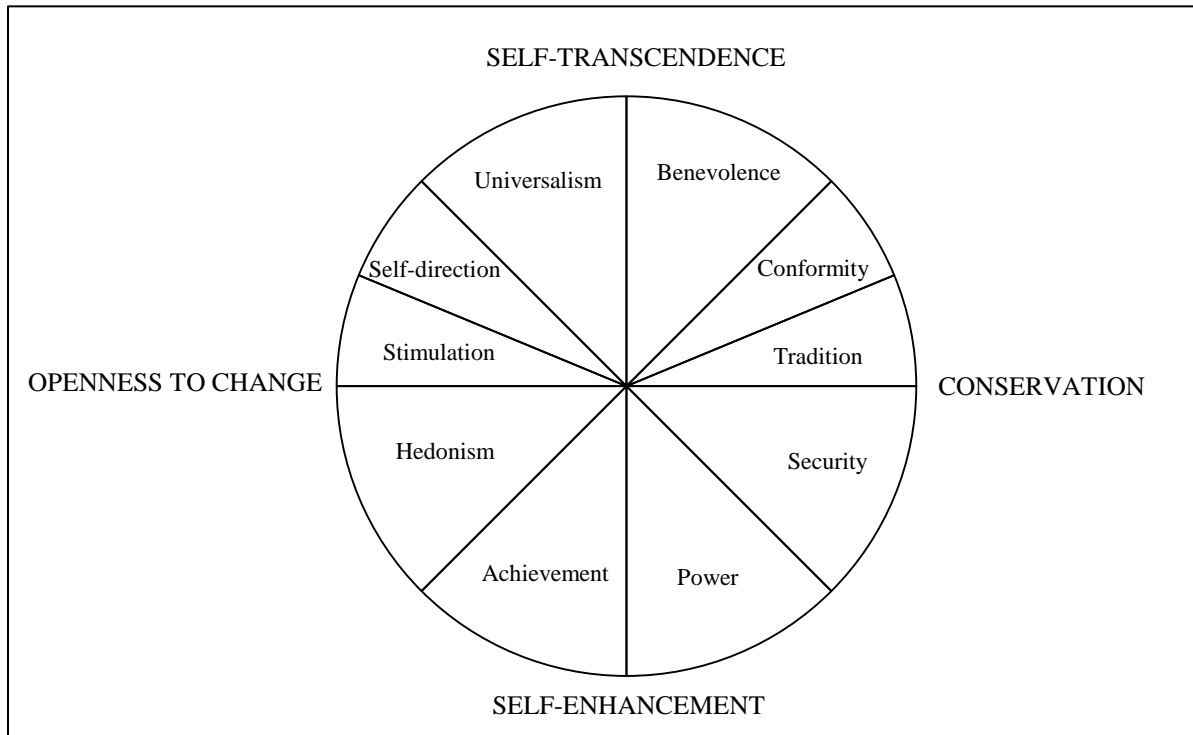


Figure 1. Schwartz's value circumplex. The figure (Kajonius et al., 2015) depicts the 10 personal values (Schwartz, 1992).

2015; Parks-Leduc et al., 2015): The Big Five trait openness tends to correlate positively with the value-domains universalism, self-direction and stimulation, and negatively with power, security, tradition and conformity; Big Five extraversion tends to correlate positively with stimulation, achievement, hedonism and power, and negatively with tradition; Big Five agreeableness tends to correlate positively with benevolence, conformity and tradition, and negatively with power; Big Five conscientiousness tends to correlate positively with conformity, tradition and security. The only Big Five factor which has not shown any clear relationship with values is neuroticism. In a similar vein, Vecchione (2023) recently correlated the Big Five Questionnaire (Caprara et al., 1993) using a refined value measure of Schwarz which splits several of the value-domains. For instance, the value-domain self-direction was split into two: the first, concerned with thoughts and the second, concerned with actions. In this study, agreeableness showed no relation to self-direction in thoughts but was strongly negatively correlated with self-direction in actions.

### The present study

The present study aims to (1) provide information on the relationships between Big Five trait facets and value-domains, and (2) to investigate the role of sex, age, and socioeconomic status on the trait-value relations. This study is an expansion of the research by Roccas et al. (2002) linking the more detailed facet level characteristics to broad value-domains in a different sample and by using a publicly available personality instrument – the IPIP-NEO-120 (see Kajonius & Johnson, 2019). This study may also add to the

findings by Fischer and Boer (2015), who showed that the links between traits and values can be moderated by country-level threats (e.g., resources or social institutions). In their study, for instance, financial or ecological pressures weakened the relationship between the Big Five factor conscientiousness and the value-domain security. This could arguably further be tested by using socioeconomic status (SES) as a proxy for contextual threat. Similarly, age could naturally be another potential moderator. For instance, the older one gets the more resources one tends to accumulate, which could strengthen the trait-value relationship. Their effect on trait-value relations is not clear.

## METHOD

### Participants and procedure

Participants ( $N = 406$ ) were recruited through Amazon's Mechanical Turk (Mturk). Mturk is a platform where individuals of age 18 or older can be contracted to participate in research studies in exchange for a fee. Researchers provide instructions for desired sample characteristics and Mturk tailors the sample accordingly. Our only inclusion requirements were an approval rate of 95% or above from participants' previous Mturk engagements which is a suggested criterion for ensuring sample integrity on the platform (Chmielewski & Kucker, 2020) as well as US nationality. People were invited to participate in a research project and asked to fill out a questionnaire anonymously and voluntarily on personality traits and values. They were compensated

Table 1. Confirmatory factor analysis of IPIP-NEO-120

Big Five trait / trait-facet	ECV	Facet ( $\beta$ )	Item a	Item b	Item c	Item d
Neuroticism $\chi^2(246) = 1099$ ; RMSEA = 0.09; TLI = 0.85, CFI = 0.87						
N1_Anxiety	.97	.98	.77	.76	.81	.88
N2_Anger	.60	.77	.90	.83	.85	.49
N3_Depression	.67	.82	.89	.80	.90	.61
N4_Self-conscious	.56	.75	.81	.72	.63	.46
N5_Immoderation	.12	.35	.32	.61	.81	.83
N6_Vulnerability	.96	.98	.84	.84	.81	.63
Extraversion $\chi^2(246) = 1579$ ; RMSEA = 0.12; TLI = 0.73, CFI = 0.76						
E1_Friendliness	.86	.93	.82	.84	.62	.63
E2_Gregarious	.84	.91	.75	.80	.64	.70
E3_Assertive	.42	.65	.88	.82	.82	.60
E4_Activity	.37	.61	.58	.84	.65	.20
E5_Excitement	.41	.64	.85	.77	.49	.53
E6_Cheerfulness	.71	.84	.79	.77	.75	.72
Openness $\chi^2(246) = 1196$ ; RMSEA = 0.10; TLI = 0.70, CFI = 0.74						
O1_Imagination	.17	.41	.65	.63	.83	.65
O2_Artistic	.61	.78	.75	.45	.68	.80
O3_Emotionality	.34	.59	.36	.44	.68	.72
O4_Adventurous	.42	.65	.41	.59	.59	.67
O5_Intellect	.70	.84	.45	.82	.67	.88
O6_Liberalism	.14	.38	.81	.24	.89	.56
Agreeableness $\chi^2(246) = 1804$ ; RMSEA = 0.13; TLI = 0.74, CFI = 0.77						
A1_Trust	.98	.99	.92	.86	.91	.77
A2_Morality	.87	.14	.81	.85	.85	.82
A3_Altruism	.73	.28	.43	.54	.84	.81
A4_Cooperation	.81	.19	.58	.80	.83	.69
A5_Modesty	.11	.89	.54	.88	.95	.42
A6_Sympathy	.55	.45	.61	.65	.80	.80
Conscientiousness $\chi^2(246) = 1338$ ; RMSEA = 0.11; TLI = 0.80, CFI = 0.82						
C1_Self-efficacy	.42	.57	.71	.79	.76	.78
C2_Orderliness	.64	.36	.46	.82	.90	.92
C3_Dutifulness	.79	.21	.55	.50	.68	.80
C4_Achievement	.78	.22	.56	.41	.75	.77
C5_Self-discipline	.87	.13	.49	.51	.78	.81
C6_Cautiousness	.54	.46	.85	.81	.89	.91

Note: Big Five IPIP-NEO Second-order CFA structures. Each trait-facet loads ( $\beta$ ) on the top trait domain factor, and each trait-facet is made up of four items (a, b, c, and d). ECV = Explained Common Variance (based on respective items); RMSEA = Root Mean Square Error of Approximation; TLI = Tucker Lewis Index; CFI = Comparative Fit Index.

with the standard fee according to Mturk guidelines. Instructions emphasized that the data would be used for a psychology research study. 55% were male, with age ranging from 18 to 74 years ( $M = 40.8$ ;  $SD = 12.4$ ), and Cantril's socioeconomic status (SES) ladder was normally distributed ( $M = 4.9$ ,  $SD = 1.6$ ). We also interspersed attention-checks between questions which were "Is Obama a president of the

USA?". No participant fell below the recommended minimum of one second per item or a more conservative 1.5 seconds. Following the local and national ethical guidelines, the requested information was not considered to be sensitive personal data. Participants provided informed consent prior to accessing the survey.

A power analysis using G\*Power (version 3.1.9.4) in-

licated that with a planned sample size of about 400 and a power of 80% we would be able to detect bi-serial correlation effects at the magnitude of  $r = .14$  with a significance level of  $\alpha = .05$ .

## Measures

### *The Big Five of personality.*

The International Personality Item Pool IPIP-NEO-120 was used; it is a publicly available measurement used to measure both Big Five trait-domains and trait-facets (Kajonius & Johnson, 2019). It is a self-report instrument composed of 6 facets for each Big Five factor and 4 items for each facet. See Tables 1 and 2 for the list of trait-facets in IPIP-NEO-120. Response categories range from 1 to 5 on a Likert scale from “strongly disagree” to “strongly agree.”

### *Values.*

The Portrait Value Questionnaire IV (PVQ-IV; Schwartz & Rubel-Lifschitz, 2009) was used; it is a self-report questionnaire of 40-items which prompt the participant to rate their resemblance to a brief (gender-matched) ‘portrait’. An item from the value-domain universalism could look like: “He wants everyone to be treated justly, even people he doesn’t know. It is important to him to protect the weak in society.”. This is then rated on a 1-6 Likert scale ranging from “Not like me at all” to “Very much like me”.

### *Demography.*

In addition to sex (male, female) and age, Cantril’s self-anchoring socioeconomic status (SES) ladder was used: “Please imagine a ladder with steps numbered from zero at the bottom to ten at the top. Suppose that the top of the ladder represents the best possible life in society and the bottom of the ladder represents the worst possible life. If the top step is 10 and the bottom step is 0, on which step of the ladder do you feel you personally stand at the present time?” (Kilpatrick & Cantril, 1960). This scale is frequently also used as a proxy for well-being (Deaton, 2008).

## Statistical analysis

For analyzing trait-value relations at the facet level of traits, we utilized zero-order bivariate Pearson’s correlations. All correlations were dis-attenuated, corrected for random measurement error. The goal of dis-attenuation is to display a more representative relationship between variables (Wang, 2010), as measurement error tends to create a downward bias in correlational size. General guidelines for individual differences research recommend correlations above  $r = +.30$  between two variables to be considered as sizable, seeing only 1/3 of all studies report above this threshold (Gignac & Szodorai, 2016).

For analyzing moderations of trait-value relations by sex, age, and socioeconomic status, we conducted multiple regression analyses. The regression models included each trait-facet as predictor, the demographic variable in question (sex, age, or SES) as moderator, and each value as dependent variable. An example of a moderation model could look like this: The dependent outcome variable (value-domain *security*) is regressed on the independent predictor variable

(trait-facet *trust*) and the interaction predictor variable (*trust \* age*). Due to the vast number of models, we performed Bonferroni correction to adjust for increased risk of false positives (Type I error), which is recommended when conducting numerous statistical tests (Armstrong, 2014).

Before reporting on the research aims, we also tested the structural validity of the traits at facet level in the present Mturk sample. See Table 1 for a summary of estimates of trait-facets and item-loadings using second-order confirmatory factor analyses (CFA) of the IPIP-NEO-120.

## RESULTS

Table 2 contains the descriptive statistics of the 30 IPIP-NEO trait-facets and the 10 value-domains in the present study. Most trait-facets and values reported skewness or kurtosis below  $\pm 1$ , indicating a normally distributed sample. Among trait-facets, only morality and self-efficacy stood out with skewness and kurtosis around or above  $\pm 1.5$ . The internal consistencies (Cronbach’s alpha) were overall high with trait-facets mostly above  $\alpha > .80$  and value-domains similarly mostly near or above  $\alpha > .80$ .

For the first aim, we present a bivariate zero-order correlational matrix between all IPIP-NEO trait-factors, trait-facets, and value-domains. All trait-value correlations are presented with a gradient heat-map (the redder the stronger the positive correlation, and the bluer the stronger the negative correlation) in Table 3. Approximately 1 out of 5 correlations in the table were found to be converging, that is ( $r > |0.50|$ ). This implies that trait-facets and values are largely separate constructs.

Neuroticism trait-facets showed overall negative correlations with self-direction, stimulation, hedonism, and benevolence. The largest correlations were seen with the facet self-consciousness (N4), that is, persons with high neurotic self-consciousness also subscribe to a restrictive stance towards self-extolling. Second, extraversion trait-facets overall correlated positively to values. The trait-facet excitement seeking (E5) showed close to convergence with the value-domain stimulation ( $r = .91$ ), which could indicate that these two constructs are mostly mutually redundant. This facet E5 also displayed close to zero correlations with the conservative value-domains security, tradition, and conformity (see Figure 1). This implies that both extraverts and introverts to a similar degree enjoy principles of conservative value-domains. Further, openness was related to both the value-domains of self-transcendence and openness-to-change (See Figure 1). Specifically, the largest positive (red) correlations were found for stimulation and the largest negative (blue) for tradition ( $r = -.74$ ). This seems sensible in that open-minded people are prone to leave traditional values and look for what stimulates change. Agreeableness, on the other hand, is linked to values mostly along the self-transcendence axis, with the value-domains universalism and benevolence. Agreeable people tend to dislike power-values and tend to embrace cooperation with most if not all people. Lastly and interestingly, the conscientiousness trait-facets self-efficacy and self-discipline correlated positively with all value-domains. It may be the case that people with high self-efficacy and internal locus of control, i.e., high conscientiousness, also like following guiding principles, i.e. values.

Table 2. Descriptive statistics for the Big Five IPIP-NEO trait-facets and Schwartz's value-domains

	Mean	Standard Deviation	Skewness	Kurtosis	Cronbach's alpha
<b>Trait-facets</b>					
N1 – Anxiety	2.76	1.18	0.07	-1.16	0.89
N2 – Anger	2.33	1.02	0.60	-0.54	0.84
N3 – Depression	2.18	1.10	0.76	-0.46	0.88
N4 – Self-conscious	3.16	1.01	-0.30	-0.61	0.75
N5 – Immoderate	2.42	0.85	0.54	0.04	0.71
N6 – Vulnerable	2.30	1.01	0.51	-0.61	0.85
E1 – Friendliness	3.30	1.05	-0.31	-0.61	0.83
E2 – Gregarious	2.60	1.09	0.28	-0.86	0.82
E3 – Assertive	3.21	1.02	-0.38	-0.59	0.86
E4 – Activity	3.09	0.79	-0.20	-0.26	0.67
E5 – Excitement	2.48	0.90	0.34	-0.55	0.78
E6 – Cheerful	3.62	0.94	-0.68	-0.07	0.84
O1 – Imagination	3.41	0.95	-0.35	-0.53	0.77
O2 – Artistic	3.75	0.93	-0.70	-0.01	0.75
O3 – Emotional	3.76	0.78	-0.54	-0.07	0.65
O4 – Adventurous	2.86	0.83	0.08	-0.29	0.66
O5 – Intellect	3.69	0.98	-0.52	-0.52	0.79
O6 – Liberal	3.04	1.04	-0.31	-0.82	0.72
A1 – Trust	3.38	1.10	-0.58	-0.56	0.92
A2 – Morality	4.32	0.92	-1.57	1.74	0.90
A3 – Altruism	4.04	0.81	-0.91	0.44	0.78
A4 – Cooperation	4.16	0.92	-1.19	0.68	0.80
A5 – Modesty	3.48	0.99	-0.20	-0.77	0.80
A6 – Sympathy	3.99	0.86	-0.76	0.08	0.82
C1 – Self-efficacy	4.15	0.71	-1.07	1.76	0.84
C2 – Orderliness	3.86	1.05	-0.68	-0.63	0.86
C3 – Dutifulness	4.34	0.64	-0.95	0.35	0.72
C4 – Achievement	4.07	0.79	-0.68	-0.19	0.72
C5 – Self-discipline	3.92	0.82	-0.51	-0.53	0.75
C6 – Cautiousness	4.10	0.99	-1.17	0.72	0.92
<b>Value-domains</b>					
Self-direction	5.00	0.72	-0.70	0.09	0.85
Stimulation	3.68	1.17	-0.20	-0.59	0.78
Hedonism	4.18	1.16	-0.54	-0.26	0.82
Achievement	3.97	1.14	-0.21	-0.62	0.70
Power	2.81	1.30	0.47	-0.37	0.89
Security	4.71	0.88	-0.50	-0.37	0.80
Tradition	3.42	1.55	-0.05	-1.19	0.91
Conformity	4.26	1.07	-0.45	-0.18	0.85
Universalism	4.76	0.89	-0.88	0.67	0.84
Benevolence	5.01	0.80	-1.04	0.94	0.89

Note: N1-N6 Neuroticism trait-facets. E1-E6 Extraversion trait-facets. O1-O6 Openness trait-facets. A1-A6 Agreeableness trait-facets. C1-C6 Conscientiousness trait-facets.

For the second aim, moderation analyses were conducted for each trait facet together with the demographical variable (sex, age, or SES) in each value-domain. In other words, we wanted to see if trait-value relations vary with some of the known demographic variables often used as

control variables in personality research. Due to the large number of regression models Bonferroni correction was applied, which resulted in only Z-values beyond  $\pm 4.0$  being significant. All interaction effects are presented [Supplemental Materials](#) (Table S1 for sex, Table S2 for age, and

Table 3. Heat-map correlations between trait-facets and value-domains

Traits	Values										
	Sd	St	He	Ach	Po	Sec	Tra	Con	Uni	Ben	
<b>Neuroticism</b>	-.29	-.27	-.25	-.18	-.07	-.15	-.05	-.08	-.2	-.32	.9
N1 – Anxiety	-.22	-.25	-.2	-.01	.05	0	-.02	-.01	-.09	-.19	.8
N2 – Anger	-.18	-.16	-.16	-.05	-.18	-.09	.02	-.19	-.25	-.29	.7
N3 – Depression	-.27	-.23	-.33	-.23	0	-.27	-.17	-.14	-.2	-.38	.6
N4 – Self-conscious	-.25	-.45	-.41	-.33	-.15	-.09	-.12	.04	-.16	-.28	.5
N5 – Immoderation	-.23	.04	.08	-.03	.18	.2	-.04	-.09	-.14	-.19	.4
N6 – Vulnerability	-.37	-.27	-.23	-.17	-.1	-.11	.01	-.04	-.17	-.28	.3
<b>Extraversion</b>	.2	.77	.63	.66	.54	.24	.37	.24	.3	.4	.2
E1 – Friendliness	.14	.5	.52	.37	.22	.29	.32	.3	.3	.48	.1
E2 – Gregariousness	.04	.61	.56	.46	.43	.14	.31	.22	.21	.28	.0
E3 – Assertiveness	.3	.51	.35	.66	.53	.19	.21	.04	.18	.34	-.1
E4 – Activity	.15	.46	.19	.61	.43	.18	.29	.05	.14	.25	-.2
E5 – Excitement	.05	.91	.68	.53	.62	-.08	.2	.09	.13	-.06	-.3
E6 – Cheerfulness	.25	.6	.66	.51	.35	.41	.42	.39	.39	.52	-.4
<b>Openness</b>	.33	.41	.26	.13	-.1	-.13	-.42	-.08	.6	.17	-.5
O1 – Imagination	.2	.22	.19	.07	.02	-.09	-.21	-.07	.29	0	-.6
O2 – Artistic	.29	.3	.11	.11	-.06	.06	-.1	.1	.51	.2	-.7
O3 – Emotionality	.2	.21	.27	.13	-.16	.32	.01	.27	.59	.53	-.8
O4 – Adventurous	.27	.66	.38	.19	0	-.22	-.34	-.15	.35	.04	-.9
O5 – Intellect	.43	.3	.15	.13	-.18	-.06	-.26	-.12	.42	.22	1.0
O6 – Liberalism	-.01	.04	.03	-.06	-.09	-.49	-.74	-.28	.33	-.19	1.1
<b>Agreeableness</b>	.16	-.11	-.03	-.26	-.6	.13	-.13	.25	.39	.46	1.2
A1 – Trust	-.05	.32	.3	.15	.13	.06	.23	.32	.21	.24	1.3
A2 – Morality	.23	-.24	-.17	-.32	-.66	.12	-.18	.08	.2	.35	1.4
A3 – Altruism	.23	.12	.2	.04	-.35	.29	0	.32	.56	.67	1.5
A4 – Cooperation	.15	-.27	-.15	-.28	-.63	.07	-.26	.16	.29	.29	1.6
A5 – Modesty	-.04	-.53	-.44	-.67	-.79	-.15	-.34	-.08	-.07	-.01	1.7
A6 – Sympathy	.22	.09	.1	-.03	-.34	.2	-.09	.26	.68	.51	1.8
<b>Conscientiousness</b>	.38	.01	.06	.24	-.16	.37	.09	.2	.27	.52	1.9
C1 – Self-efficacy	.47	.35	.36	.57	.23	.44	.23	.26	.32	.56	2.0
C2 – Orderliness	.21	.01	.01	.13	-.13	.28	.12	.16	.21	.29	2.1
C3 – Dutifulness	.38	-.11	.01	.07	-.35	.38	.05	.32	.31	.66	2.2
C4 – Achievement	.37	.01	0	.25	-.29	.32	0	.1	.26	.58	2.3
C5 – Self-discipline	.4	.2	.22	.46	.09	.44	.22	.24	.26	.53	2.4
C6 – Cautiousness	.23	-.32	-.21	-.12	-.35	.17	-.12	.04	.1	.22	2.5

Note: All  $r > .18$  are significant at .05 after dis-attenuation and Bonferroni corrections. Sd = self-direction, St = stimulation, He = hedonism, Ach = achievement, Po = power, Sec = security, Tra = tradition, Con = conformity, Uni = universalism, Ben = Benevolence. The right column, illustrates the gradient color of correlational strength, running from red (strong positive correlation) to blue (strong negative correlation).

Table S3 for SES). Overwhelmingly, estimates in the moderation-analyses were non-significant. Even before the Bonferroni correction, only 2% of all the interactions showed significance. For example, agreeableness trait-facets such as trust, cooperation, and sympathy showed trends to interact with being female, increasing the trait-facet relations with

value-domains security, tradition, conformity, universalism, and benevolence. In a similar fashion, there were some moderating trends of age increasing the relations between agreeableness facets cooperation and sympathy with value domains power, security, and tradition. It seems that being female and being of mature age may slightly accentuate the

link between agreeableness and value-domains. Exemplifying SES (socioeconomic status; Table S3), most extraversion trait-facets tended to show increase with value-domain power with higher SES. This could mean that more resources (i.e., higher SES) increases both extraversion (assertive and social trait-facets) and power-values in a similar way. The only effect surviving Bonferroni adjustment was the interaction between the trait-factor agreeableness and SES in predicting the value of universalism ( $Z = -4.04$ ). This means that the relationship between agreeableness and universalism got weaker the higher the SES.

## DISCUSSION

The present study aimed to examine the links between personality trait-facets and value-domains, and in addition to explore whether these links vary with demographic variables. Overall, we were able to present a 30 x 10 correlational table and arguably show that traits and values overall are more divergent than convergent, but with exceptions. We also reported that most interactions with sex, age, and socioeconomic status had trivial or non-significant effects on the relations between traits and values.

The general finding was that neuroticism trait-facets overall were negatively related to each of the 10 value-domains, while extraversion trait-facets overall were positively related (see Table 3). One explanation could be that neuroticism and extraversion overlap with subjective well-being (e.g., Anglim et al., 2020). Values are per definition guiding beliefs for desirable outcomes, and value-fulfillment is related to subjective well-being (Oppenheim-Weller et al., 2018). For instance, higher extraversion tends to predict better opportunities for life outcomes while the opposite is true for neuroticism (e.g., Roberts et al., 2007).

Another observation is that trait-facets in the same trait-domain vary not only in size but also in direction in their relationship with value-domains. For instance, most trait-facets in openness, such as imagination and emotionality, correlate positively with some value-domains and negatively with other value-domains (see Table 3). Also, the size of correlations among openness trait-facets ranges from  $r = .66$  between adventurous and stimulation to  $r = -.74$  between liberalism and tradition. Naturally, facet-level measurements of personality provide more detail compared to the Big Five domain-level and disparate results are to be expected. Overall, however, our results were not as spread at facet-level as in Roccas et al. (2002). The overlap of traits and values could be explained by the PVQ-instrument which has been observed to enhance value-trait relationships compared to other measures of Schwarz's values (Parks-Leduc et al., 2015). For example, excitement-seeking was almost perfectly correlated with the value-domain of stimulation.

The present study furthermore indicates that value-trait relations are mostly independent of demographic variables. It seems that the link between personality traits and values are reasonably stable across sex, age, and socioeconomic status. Only the links between agreeableness trait-facets and the universalism value-domain showed significant moderation effects with SES. One interpretation of this is that persons with higher socioeconomic status are less dependent on

their agreeableness for endorsing universalist values. An elite of society likely has more time and material resources to seek social justice and equality-values, thus being more independent of inner dispositions.

## Limitations

The utilization of an Mturk-sample may be somewhat different from previous studies which have relied mostly on student samples. This could be viewed as a strength as we know who the Mturkers are (Chmielewski & Kucker, 2020). Respondents via Mturk also tend to respond faster and be less 'naïve' to surveys compared to more traditional samples (Aguinis et al., 2021). This could be one contributing factor explaining the arguably strong alignment of traits and values. This could also be especially true for extraversion (see Table 3 as almost only red indicating only positive correlations), as these are more prone toward an extreme response style, i.e., responding toward endpoints of a scale (Naemi et al., 2009). Also, the high Cronbach's alphas enable more variance for covariations. The self-reported voluntary anonymous design of the questionnaire likely further response styles conducive for the trait-value relationships. Also, the study's sample size is on the lower end given the many variables examined, even with Bonferroni-adjustments, particularly for the moderation analyses.

## Conclusion

We were able to present a facet-level trait correlation map with value-domains for future research and referencing. We were also able to show that these trait-value relations were robust against interactions with demographic variables often used in personality research. We conclude that trait-facets can contribute to an increased understanding of values, and we echo the call of Möttus (2016) and others to pay more attention to this level of personality in future research.

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Received October 21, 2023

Accepted April 6, 2024