Mapping Political Trust and Involvement in the Personality Space

– A Systematic Review and Analysis

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Abstract

Individual differences in *political trust* and *involvement in politics* have been linked to Big Five personality dispositions. However, inconsistent correlational patterns have been reported. As a systematic review is still missing, the present paper provides an overview of the current state of the empirical literature. A systematic review of 43 publications ($N = 215,323$ participants) confirmed substantial inconsistency in the correlational patterns and corroborated a suspicion that the frequent use of low-bandwidth personality short scales might be responsible, among other reasons. In a second step, we conducted two empirical studies ($N_1 = 988$ and $N_2 = 795$), estimating latent correlations between the Big Five and political trust and involvement at different hierarchical levels. We found that personality relations were consistent across different subdimensions of trust (e.g., trust in politicians, institutional trust) and involvement (e.g., political interest, political self-efficacy, participation propensity) and are therefore best estimated at aggregated levels (i.e., general political trust and involvement). Meanwhile, correlational patterns differed substantially between Big Five facets, confirming that previous inconsistencies can be partly attributed to a misbalanced representation of facets in Big Five short scales and indicating that associations should be estimated at lower levels of the personality hierarchy.

Keywords: Political trust, political involvement, political attitudes, personality traits, Big Five, systematic review

Introduction

“Political research on the Big Five traits is only in its initial stages”

Gerber, Huber, Doherty, and Dowling (2011b, p. 284)

In the last ten years, an impressive body of research has investigated the association between basic personality traits and political attitudes or behavior (e.g., Arzheimer, 2005; Chang, Weng, & Wang, 2020; Freitag & Ackermann, 2016; Gerber et al., 2011a, 2011b; Mondak & Halperin, 2008; Mondak, Hibbing, Canache, Seligson, & Anderson, 2010; Rasmussen & Nørgaard, 2018; Riemann, Grubich, Hempel, Mergl, & Richter, 1993; Sibley, Osborne, & Duckitt, 2012; Vecchione & Caprara, 2009; Vitriol, Larsen, & Ludeke, 2019). Many studies have focused on ideological issue preferences (especially liberalism vs. conservatism). This research produced fairly robust results, as outlined in systematic reviews (e.g., Sibley et al., 2012). There is less systematic evidence, however, on the association between personality and individual differences in how people think and feel *about politics in general*. A large number of concepts have been introduced to touch upon these individual differences: for example, *trust in politicians* (e.g., Halmburger, Baumert, & Rothmund, 2019), *trust in political institutions* (e.g., Marien, 2011), *trust in the political system* (e.g., Halmburger, Baumert et al., 2019), *external political efficacy* (describing the political system’s perceived responsiveness, e.g., Craig, Niemi, & Silver, 1990), *political interest* (van Deth, 1990), *internal political efficacy* (describing beliefs of political self-efficacy, e.g., Sohl, 2014), and *political participation propensity* (describing a general willingness to participate in politics, e.g., Webb, 2013). Individual differences in these concepts have been demonstrated to be relatively stable across time (e.g., Eckstein, Noack, & Gniewosz, 2012; Prior, 2010; Schneider, Otto, Alings, & Schmitt, 2014; Schoon & Cheng, 2011). Despite a large number of studies on the association between personality traits and attitudes towards politics (e.g., Arzheimer, 2005; Gerber et al., 2011a, 2011b; Mondak & Halperin, 2008; Vecchione & Caprara, 2009; Vitriol et al., 2019), the

empirical literature has not been systematized, so far, and provides some theoretical and methodological shortcomings (Vitriol et al., 2019).

We aim to address these issues, by systematically reviewing the correlational patterns between Big Five factors and general attitudes towards politics. We also present results from two empirical studies that complement previous evidence in important ways by drawing on the hierarchical structure of both, the Big Five and general attitudes towards politics. First, we tested whether correlations with the Big Five can be found for higher-order factors of attitudes towards politics. By doing so, we aimed to complement recent evidence that such higher-order factors provide meaningful levels of measurement and analysis (Bromme & Rothmund, in press). Second, we tested the relation between attitudes towards politics and different facets of the Big Five. Previous literature mostly focused on the domain-level of personality (neglecting facet-differences), but investigated attitudes towards politics at a highly specific level (neglecting higher-order factors). We discuss how this misbalance might have attenuated correlational effects in previous literature, resulting in inconclusive findings.

Theoretical background

Personality has long been theorized to play a role for people's political thinking (e.g., Allport, 1929). With the rise of the Big Five framework in the 1990s, this line of research has gained new momentum (see Mondak & Halperin, 2008), first inspiring studies on ideological issue preferences (e.g., Riemann et al., 1993) and—more recently—studies on general attitudes towards politics, as well as participation behavior (e.g., Arzheimer, 2005; Freitag & Ackermann, 2016; Gerber et al., 2011a, 2011b; Ha, Kim, & Jo, 2013; Mondak et al., 2010; Mondak & Halperin, 2008; Vecchione & Caprara, 2009; Vitriol et al., 2019).

Arguments linking the Big Five to political attitudes and behavior rest mostly on conceptualizations of the Big Five as coherent patterns of people's responses to the social world, including patterns of cognition, emotion, motivation, or behavior (Denissen & Penke, 2008; Gerber et al., 2011b; McAdams & Pals, 2006). Different mechanisms have been proposed. First, consistently repeated behavioral responses to daily situations might—over time—contribute to the acquisition of specific sets of political attitudes. For instance, “individual differences in the reaction to exposure to new information should help to develop the habit of reading newspapers and political interest” (Gallego & Oberski, 2012, p. 427; see also Mondak, 2010). Second, some Big Five factors imply individual abilities (e.g., persuasiveness in extraversion or information processing abilities in openness to experience), which might be preconditions of successful involvement in politics (Vecchione & Caprara, 2009, 488; 491). Third, Denissen and Penke (2008) proposed a conceptualization of the Big Five as “stable individual differences in (...) motivational reactions to circumscribed classes of environmental stimuli” (p. 1298), each domain corresponding to a different class of stimuli. To the degree that political situations contain the relevant characteristics (e.g., resource conflicts; p. 1297), they might evoke consistent motivational reactions conditional on the trait level.

While a causal sequence—putting the Big Five first, and political attitudes and behavior later—seems to be implied by many authors, (e.g., Gallego & Oberski, 2012; Mondak, 2010;

Schoen & Steinbrecher, 2013; Vecchione & Caprara, 2009), it should be noted that other mechanisms are at least as plausible, such as shared genetic factors (e.g., Dawes et al., 2014; Verhulst, 2012; Weinschenk, Dawes, Kandler, Bell, & Riemann, 2019).

Inconsistent findings in previous studies

Despite the growing number of studies, the pattern of correlations between the Big Five and general attitudes towards politics remains inconclusive. For example, Vitriol et al. (2019), comparing data from ten different political surveys, reported opposing correlations between openness to experience and measures of political trust across datasets. In a similar vein, Chang et al. (2020) reported opposing correlations for several Big Five factors and people's propensity for political protest across different countries.

So far, previous findings have not been compared systematically. Nevertheless, some authors have suggested explanations for inconsistencies that had been observed across studies. First, moderators have been proposed at the level of the political culture, such as a country's level of democratization (Chang et al., 2020) and the frequency that people experience direct-democratic initiatives (Ackermann, 2017), offering theory-based explanations of inconsistent findings. Second, weaknesses in the design and measurement have been hypothesized to produce unreliable results (e.g., Gerber et al., 2011b; Vitriol et al., 2019). One particular point of critique concerns the common use of Big Five short scales in these studies, often using only one or two items per factor. Short scales are generally less reliable, because fewer items imply less chances to cancel out each single item's error component (Credé, Harms, Niehorster, & Gaye-Valentine, 2012, p. 875). As unreliable measurement might either attenuate the correlation between two constructs, or introduce construct-irrelevant noise, producing false effects, unreliable Big Five short scales might be responsible for inconsistent findings in political personality research (cf. Bakker & Leides, 2018, p. 1312). In addition, two items per factor can hardly represent the complexity of broad and multi-faceted personality factors like the Big Five, and thus lack content validity (Credé et al., 2012). Depending on the scope of the

selected items, certain aspects of a domain will dominate the respective factor score, while other aspects will be missing, limiting the comparability of results (Bakker & Lelkes, 2018; Gerber et al., 2011b). In a recent study, Bakker and Lelkes (2018) used random subsets of a ten-item-per-factor personality measure to demonstrate how the correlation between Big Five factors and political ideology is attenuated conditional on the brevity of the Big Five scale. Two-item scales often produced insignificant effects, that turned out to be significant when more items were used.

A connected issue concerns the level of aggregation of the constructs involved. While studies in personality and politics typically aim to assess the Big Five factors at their broadest level, attitudes towards politics are traditionally investigated at a much more specific level (e.g., distinguishing several forms of political participation, instead of assessing a latent propensity to participate; e.g., Mondak et al., 2010; Weinschenk, 2017), which might have contributed to an inconclusive state of affairs, as we will discuss in more detail in the next two sections.

Considering a hierarchical model of attitudes towards politics. Substantial correlations have been shown between different attitudes towards politics, particularly between *trust in politicians*, *trust in institutions*, *trust in the political system*, and *the system's responsiveness* (e.g., Arzheimer, 2005, p. 196; Beierlein, Kemper, Kovaleva, & Rammstedt, 2014, p. 8; Craig et al., 1990, p. 304; Halmburger, Baumert et al., 2019; Niemi, Craig, & Mattei, 1991, p. 1411), and between *political interest*, *internal efficacy*, and *participation propensity* (e.g., Bromme, Rothmund, & Caprara, 2020; Caprara, Vecchione, Capanna, & Mebane, 2009; Foschi & Lauriola, 2014, p. 350; Niemi et al., 1991). High correlations are unsurprising given the conceptual overlap between these constructs. In a recent paper, we therefore proposed a parsimonious structural model, with two higher-order factors subsuming each cluster of attitudes (Bromme & Rothmund, in press; see Weatherford, 1991, for a similar proposition), and provided evidence for its factorial validity and structural universality based on a large number of samples from various democracies. We interpreted these higher-order factors as

dispositional tendencies of how people relate to politics in general. The first factor, *general political trust*, is defined as “*the expectation that political objects are—in general—trustworthy, in the sense that they will behave in the citizens’ best interest, even in the absence of direct citizen control*” (Bromme & Rothmund, in press, p. 8; building upon Halmburger, Baumert et al., 2019). The second factor, *general political involvement*, is defined as “*the degree that politics is relevant for various aspects of a person’s self-concept*” (p. 6).

The temporal stability of attitudes towards politics (e.g., Prior, 2010; Schneider et al., 2014; Schoon & Cheng, 2011), and the fact that the higher-order factors of trust and involvement are largely reproducible across cultures (Bromme & Rothmund, in press) underline the dispositional nature of these tendencies. In addition, they are broader than their lower-order components and constitute more general (i.e., less context- and stimulus-dependent) tendencies of thinking and feeling, although they are self-evidently limited to the political context. We therefore argue, that the higher-order factors of attitudes towards politics constitute the more plausible candidates regarding associations with the Big Five, as these are even broader, decontextualized dispositions (McAdams & Pals, 2006). This assumption is in line with Brunswik’s principle of symmetry, which states that the strongest correlation between a predictor and a criterion can be expected if both constructs are measured at the same level of aggregation, while measures from different levels of aggregation introduce irrelevant variance at one side or neglect relevant variance at the other side, attenuating the correlation (Wittmann, 1988; see also Hogan & Roberts, 1996, for similar arguments). By testing correlations between the Big Five and higher-order factors of attitudes towards politics we thus expect to produce more robust and more substantial correlations than previous studies. In addition, the pattern of correlation can serve to refine our understanding of the content of these higher-order factors, given the preliminary nature of our above cited interpretations.

Considering more specific levels of the personality hierarchy. The Big Five personality factors (“*domains*”, Costa & McCrae, 1995, p. 23) are broad aggregations of more

specific, inter-correlated traits (e.g., Costa & McCrae, 1995; Costa, McCrae, & Dye, 1991; DeYoung, Quilty, & Peterson, 2007; Johnson, 2014). For instance, the Revised NEO Personality Inventory (NEO-PI-R; Costa & McCrae, 1992) is organized in six specific *facets* for each domain, and DeYoung et al. (2007) introduced the separation of each domain into two *aspects* “representing an intermediate level of personality structure between facets and domains” (p. 880). Gerber et al. (2011b) argued that considering lower levels of the personality hierarchy might be useful to (a) decipher the inconsistent effects of personality short scales due to biased reliance on single facets and (b) advance the understanding of the relation between the Big Five and attitudes towards politics.

As Cronbach (1960, pp. 602–603) argued, trait assessment always faces a trade-off between bandwidth (i.e., amount of complexity represented by the measure) and fidelity (i.e., accuracy of the measure). While domain-level assessment of the Big Five requires a large bandwidth to represent the whole breadth of each domain (which—again—is difficult to achieve by short scales; Bakker & Leles, 2018), facet-level assessment can achieve higher fidelity, as the constructs are more narrow and do not require the same degree of bandwidth as domain-level assessment. In order to predict specific outcomes—like specific political attitudes—high-fidelity measures like the Big Five facet scales have been argued to be advantageous (cf. Hogan & Roberts, 1996). Yet, to our knowledge, only three studies have made use of this level of analysis: Gerber et al. (2011b) have explored 10 out of 30 facets regarding their effect on political interest; Foschi and Lauriola (2014) regressed self-reported political participation on facet-measures of extraversion and agreeableness, and Chen (2015), in his dissertation, included tests of the ten personality aspects and (campaign-related) participation propensity.

In the remainder of this article, we will first present results from a systematic literature review assessing the degree of (in)consistency of previous findings of attitudes towards politics and the Big Five, and the role of short scales in these studies. We will then present two empirical

studies focusing on the role of different levels of aggregation of (a) general attitudes towards politics and (b) the Big Five.

A systematic literature review

In our review, we aimed to assess the consistency in correlational patterns between the Big Five and general attitudes towards politics. As higher-order factors of political trust and involvement have not been used in previous studies of the Big Five, we focused on more specific facets of political trust (trust in politicians, trust in political institutions, external efficacy) and political involvement (political interest, internal efficacy, and participation propensity). For each of these measures, we selected studies that met the following criteria:

1. The study included a measure of general attitudes towards politics (definitions of the six constructs are documented in the online supplements).
2. The study included a measure of at least one domain-level factor of the Big Five, explicitly referring to the 'Big Five' or 'Five Factor' framework (i.e., excluding studies that measured, for example, extraversion based on the Eysenck framework).
3. The study included a correlational estimate of the association between both measures (e.g., bivariate correlation, regression or path coefficient; excluding review articles).
4. The study was reported in English or German (the authors are fluent in these languages).

Identifying relevant studies. Our literature search involved two steps (see online supplements for the protocol). First, using the *web of science* database (www.webofknowledge.com), we conducted a forward reference search (Cooper, 2017, p. 94) based on two key publications regarding general attitudes towards politics and the Big Five, namely the papers by Mondak and Halperin (2008) and Mondak et al. (2010). Out of the 348 database records, we identified 34 publications that fulfilled the above-mentioned criteria (including both starting point papers). Second, we conducted a keyword-based search for books and book chapters at *World Cat* (www.worldcat.org), identifying three monographs and six chapters in edited volumes. In addition, we found seven relevant manuscripts by unsystematic

search processes (including unpublished manuscripts through personal contacts). In total, we identified 50 publications and manuscripts, many of which contained more than one study. Different studies from the same publication were included as long as they were conducted independently from each other. In order to ensure independency of coded effects (within each construct-specific review), we used the following additional selection criteria:

5. If several studies were based on the same sample, we only included one study, preferably the one applying the most direct estimation of effects (e.g., without control variables).
6. If a study included several estimates of the same effect (i.e., different models), we only included the estimate of the most direct effect (e.g., without control variables).
7. If different subsets of a sample were analyzed separately (using the same measures), we included the full sample results, or—if not reported—the results of the largest subsample.

Consequently, seven publications were excluded from the review (see online supplements). The remaining 43 publications and manuscripts included relevant analyses of $k = 56$ independent samples and a total of approximately $N = 215,323$ participants.

Coding relevant information. For each correlation between Big Five factors and attitudes towards politics, we coded the direction (positive / null / negative) and the level of statistical certainty ($p < .05$ / $p < .01$), as displayed in Table 1 (for political trust) and Table 2 (for political involvement). Given the previous critique of short scales (e.g., Bakker & Leleis, 2018), we coded the number of items and the reliability coefficients, as far as they were reported in the primary literature. We also coded sample size and the type of sample (random / quota / convenience / cohort / twin), as sampling methods might affect generalizability (see Vitriol et al., 2019). Finally, we coded whether latent variable modelling or other strategies to correct for measurement error have been applied, since we suspected that these strategies have been largely neglected in the previous literature. Further details on the studies are provided in the online supplementary materials.

Table 1. Studies of Big Five and Attitudes of Political Trust

Study	Reported Effects					Sample			Trust Measure		Big Five Measure			LV
	N	E	O	C	A	Country	Type	N	# Items	Rel.	Measure	# Items / Factor	Rel.	
<i>Trust in Politicians</i>														
Arzheimer (2005)	–	0	0	–	0	Germany	random	2462	1	-	NEO-FFI	12	$\alpha = .66 - .84$	no
Halmburger, Rothmund, Baumert & Maier (2019)	NA	NA	NA	NA	(+)	Germany	convenience	205	9	$\alpha = .93$	BFI-10	2	$\alpha = .40 - .59$	no
Mondak & Halperin (2008), Study 2	0	0	–	0	(+)	USA	(random)	793	1	-	ad hoc	2	$\alpha = .39 - .57$	no
Pattyn, van Hiel, Dhont & Onraet (2012), Study 2	0	0	0	0	0	Netherlands	convenience	225	6	$\alpha = .82$	NEO-FFI	12	$\alpha = .67 - .86$	no
Stürner, Baur, Reischmann, Schreyer & Georgiadis (unpublished)	–	0	0	0	+	Germany	convenience	325	9	NA	BFI-2	12	$\alpha = .60 - .88$	no
Vitriol et al. (2019), ANES 2016 data	0	0	+	+	0	USA	random	3573 ~	1	-	TIPI	2	NA	no
Vitriol et al. (2019), BES data	–	+	–	+	+	Great Britain	random	29484 ~	1	-	TIPI	2	NA	no
<i>Trust in political Institutions</i>														
Arzheimer (2005)	–	0	+	–	0	Germany	random	2467	3	$\alpha = .74$	NEO-FFI	12	$\alpha = .66 - .84$	no
Bakker & Vreese (2016)	0	0	(+)	0	0	Netherlands	random	1174	2	$\alpha = .93$	mini-IPIP	4	$\alpha = .58 - .77$	no
Caprara & Vecchione (2017), "Genzano Sample"	–	+	(+)	+	+	Italy	convenience	534	NA	NA	NA	NA	NA	no
Freitag (2017), DUGS 2016 data	0	0	0	0	+	Switzerland	random	1963	1	-	BFI-S	3	$\alpha = .41 - .60$	no
Freitag & Ackermann (2016)	–	–	0	0	0	Switzerland	random	1094	1	-	BFI-S	3	$\alpha = .43 - .59$	no
Gabriel & Völkl (2005)	0	0	+	–	0	Germany	(random)	1879-1910	3	NA	NEO-FFI	12	$\alpha = .66 - .84$	no
Vitriol et al. (2019), ANES 2012 data	–	0	0	0	0	USA	random	5468 ~	1	-	TIPI	2	NA	no
Vitriol et al. (2019), LAPOP data	–	–	–	(+)	+	Latin America (24 Countries)	random	35440 ~	1	-	TIPI	2	NA	no
Vitriol et al. (2019), LISS data	–	(+)	+	+	+	Netherlands	random	5537 ~	1	-	IPIP	10	NA	no
Vitriol et al. (2019), SELECTS data	–	(+)	+	0	+	Switzerland	random	7223 ~	1	-	BFI-S	3	NA	no
Vitriol et al. (2019), SHP data	–	0	0	0	+	Switzerland	random	6763 ~	1	-	BFI-10	2	NA	no
<i>External Efficacy</i>														
Arzheimer, 2005	0	0	+	–	–	Germany	random	2467	3	$\alpha = .61$	NEO-FFI	12	$\alpha = .66 - .84$	no
Beierlein et al. (2014)	0	0	0	0	0	Germany	quota	539	2	$\omega = .72$	BFI-10	2	NA	no
Cooper, Golden & Socha (2013)	(+)	+	+	0	+	USA	convenience	748	4	NA	M5-50	10	$\alpha = .75 - .86$	no
Freitag (2017), DUGS 2016 data	0	0	(+)	0	(+)	Switzerland	random	1933	1	-	BFI-S	3	$\alpha = .41 - .60$	no
Freitag (2017), PUGS 2012 data	0	0	0	0	0	Switzerland	random	813	1	-	BFI-S	3	$\alpha = .43 - .59$	no

Mondak & Halperin (2008), Study 1	0	0	0	–	(+)	USA	(random)	366	1	-	ad hoc	3 - 6	$\alpha = .67 - .75$	no
Mondak & Halperin (2008), Study 2	0	0	0	0	0	USA	(random)	769	1	-	ad hoc	2	$\alpha = .39 - .57$	no
Mondak (2010), Sample 2	0	0	0	(+)	0	USA	random	374	1	-	ad hoc	5	$\alpha = .75 - .79$	no
Mondak (2010), Sample 3	0	0	0	–	0	USA	random	677	1	-	ad hoc	2	$r = .28 - .53$	no
Rasmussen & Nørgaard (2018), Sample 1	–	+	+	0	0	Denmark	random	2167	2	$\alpha = .78$	NEO-PI-R	12	$\alpha = .71 - .84$	yes
Rasmussen & Nørgaard (2018), Sample 2	–	+	0	0	+	USA	convenience	1573	2	$\alpha = .67$	BFI-44	8 - 10	$\alpha = .81 - .89$	yes
Schoen & Steinbrecher (2013)	(–)	+	0	0	+	Germany	random	1786	1	-	BFI-10 (selection)	1	-	no
Vitriol et al. (2019), ANES 2010-12 data	–	0	+	0	(+)	USA	random	1245 ~	3	NA	TIPI	2	NA	no
Vitriol et al. (2019), ANES 2016 data	–	+	0	0	+	USA	random	3573 ~	2	NA	TIPI	2	NA	no
Vitriol et al. (2019), CES data	–	(+)	0	0	(+)	Canada	random	3683 ~	1	-	TIPI	2	NA	no
Vitriol et al. (2019), NZES data	–	+	0	+	+	New Zealand	random	2406 ~	5	NA	TIPI	2	NA	no
Vitriol et al. (2019), SELECTS data	0	0	0	–	+	Switzerland	random	7223 ~	2	NA	BFI-S	3	NA	no

Note. N = Neuroticism, E = Extraversion, O = Openness to experience, C = Conscientiousness, A = Agreeableness, *N* = Sample size, Rel. = Reliability coefficient, LV = Latent variable modelling, NA = not reported in the original publication; α = Cronbach's alpha, ω = McDonald's omega, BFI-10 = Ten-item Big Five Inventory (Rammstedt & John, 2007), BFI-2 = Big Five Inventory 2 (Soto & John, 2017), BFI-44 = Big Five Inventory (John, Naumann, & Soto, 2008), BFI-S = SOEP Big Five Inventory (Gerlitz & Schupp, 2005), IPIP = 50-item International Personality Item Pool inventory (Goldberg et al., 2006), M5-50 = M5-50 Questionnaire (McCord, 2002), mini-IPIP = 20-item IPIP short form (Donnellan, Oswald, Baird, & Lucas, 2006), NEO-FFI = NEO Five Factor Inventory (Costa & McCrae, 1992), NEO-PI-R = Revised NEO Personality Inventory (Costa & McCrae, 1992), TIPI = Ten-Item-Personality-Inventory (Gosling, Rentfrow, & Swann, 2003); "(random)" = random sampling of subpopulation (not nationally representative); Coding of effects: "–" = negative effect ($p < .01$), "(–)" = negative effect ($p < .05$), "0" = no significant effect, "(+)" = positive effect ($p < .05$), "+" = positive effect ($p < .01$).

Associations with political trust. Inspecting the patterns of correlations reported in Table 1 (see summary in Table 3), we found the expected inconsistency across studies of political trust. Roughly half of each factor's reported correlations were not significant. For neuroticism and agreeableness, we observed a tendency in one direction: For neuroticism, 53% of the correlations were negative (while 44% were not significant). For agreeableness, 57% of the correlations were positive (while 40% were not significant). In contrast, for extraversion, openness, and conscientiousness, non-significant correlations were the most prevalent: For extraversion, 62% were not significant (while 32% were positive), for openness, 56% were not significant (while 35% were positive), and for conscientiousness, 59% were not significant (while 21% were positive and negative, respectively). Overall, these findings revealed an inconclusive state of evidence. Meanwhile, similar patterns of effects can be observed across the different facets of political trust (with an exception for correlations with openness, where findings across trust facets differed more strongly between the specific measures).

Table 2. Studies of Big Five and Attitudes of Political Involvement

Study	Reported Effects					Sample			Involvement Measure		Big Five Measure			LV
	N	E	O	C	A	Country	Type	N	# Items	Rel.	Measure	# Items / Factor	Rel.	
<i>Political Interest</i>														
Caprara & Vecchione (2017), "Genzano Sample"	0	+	+	+	0	Italy	convenience	534	NA	NA	NA	NA	NA	no
Foschi & Lauriola (2014), Study 4	(−)	0	0	(+)	+	Italy	convenience	287	NA	$\alpha = .94$	BFI-44	8 - 10	$\alpha = .72 - .80$	no
Freitag (2017), DUGS 2016 data	0	+	+	0	0	Switzerland	random	1984	1	-	BFI-S	3	$\alpha = .41 - .60$	no
Freitag (2017), FWM 2014 data	0	+	+	0	0	Switzerland	random	3680	1	-	BFI-S	3	$\alpha = .41 - .65$	no
Freitag (2017), PUGS 2012 data	0	0	0	0	(−)	Switzerland	random	821	1	-	BFI-S	3	$\alpha = .43 - .59$	no
Furnham & Cheng (2019)	−	+	+	(+)	+	Great Britain	cohort	7135	1	-	IPIP	10	$\alpha = .73 - .87$	no
Gallego & Oberski (2012)	0	0	+	0	0	Spain	random	3459	1	-	BFI-10	1 - 2	NA	yes
Gerber et al. (2011a)	−	+	+	+	0	USA	quota	8664	1	-	TIPI	2	$r = .25 - .49$	no
Gugel, Hecht, Koch, Leroi & Walter (unpublished)	(−)	+	+	0	0	Germany	convenience	319	5	NA	BFI-2	12	$\alpha = .60 - .88$	no
Johann, Steinbrecher & Thomas (2015), Sample 1	0	+	+	0	−	Austria	random	3069	1	-	BFI-10	2	NA	no
Johann et al. (2015), Sample 2	−	(+)	+	(+)	+	Germany	random	3691	1	-	BFI-10 (selection)	1	-	no
Mays (2015), Sample 1	−	+	+	+	(+)	Germany	random	16254	1	-	BFI-S	3	NA	yes
Mays (2015), Sample 2	0	+	+	0	0	Great Britain	random	7960	1	-	BFI-S	3	NA	yes
Meng & Berezina (2020)	(−)	+	(+)	0	0	Malaysia	convenience	200	5	NA	mini-IPIP	4	NA	no
Mondak & Halperin (2008)	0	0	+	0	0	USA	(random)	365	1	-	ad hoc	3 - 6	$\alpha = .67 - .75$	no
Russo & Amnå (2016a)	0	+	+	+	0	Sweden	cohort	1134	2	$r_s = .60$	BFI-44	8 - 10	$\alpha = .75 - .85$	no ^a
Schoen & Steinbrecher (2013)	0	+	+	0	0	Germany	random	1786	1	-	BFI-10 (selection)	1	-	no
Vitriol et al. (2019), ANES 2010-12 data	−	0	+	+	+	USA	random	1245 ~	2	NA	TIPI	2	NA	no
Vitriol et al. (2019), ANES 2012 data	−	+	+	+	+	USA	random	5468 ~	1	-	TIPI	2	NA	no
Vitriol et al. (2019), ANES 2016 data	−	+	+	+	+	USA	random	3573 ~	1	-	TIPI	2	NA	no
Vitriol et al. (2019), BES data	−	+	+	+	0	Great Britain	random	29484 ~	1	-	TIPI	2	NA	no
Vitriol et al. (2019), CES data	−	+	+	0	−	Canada	random	3683 ~	1	-	TIPI	2	NA	no
Vitriol et al. (2019), LAPOP data	−	+	+	+	−	Latin America (24 Countries)	random	35440 ~	1	-	TIPI	2	NA	no
Vitriol et al. (2019), LISS data	−	+	+	+	+	Netherlands	random	5537 ~	1	-	IPIP	10	NA	no
Vitriol et al. (2019), NZES data	−	+	+	+	0	New Zealand	random	2406 ~	1	-	TIPI	2	NA	no

Vitriol et al. (2019), SELECTS data	-	+	+	+	0	Switzerland	random	7223 ~	1	-	BFI-S	3	NA	no
Vitriol et al. (2019), SHP data	-	0	+	0	0	Switzerland	random	6763 ~	1	-	BFI-10	2	NA	no
Wang, Weng & Tsai (2019)	0	0	0	(+)	(-)	Taiwan	NA	839	1	-	TIPI	2	NA	no
Weinschenk & Dawes (2017)	(-)	(+)	(+)	(+)	(+)	USA	twin study	974	1	-	ad hoc	4 - 10	$\alpha = .58 - .85$	no
Weinschenk & Dawes (2017)	(-)	(+)	(+)	0	0	USA	twin study	1282	1	-	BFI-44	8 - 10	$\alpha = .75 - .87$	no
Weinschenk et al. (2019)	0	(+)	(+)	(+)	0	Germany	twin study	1770	1	-	BFI-S and additional items	3 - 7	$\alpha = .53 - .81$	NA
Internal Political Efficacy														
Arzheimer (2005)	-	0	+	+	-	Germany	random	2466	3	$\alpha = .63$	NEO-FFI	12	$\alpha = .66 - .84$	no
Beierlein et al. (2014), Sample 1	-	+	+	+	(-)	Germany	quota	539	2	$\omega = .92$	BFI-10	2	NA	no
Beierlein et al. (2014), Sample 2	-	+	+	+	0	Germany	random	1134	2	$\omega = .83$	BFI-10	2	NA	no
Bialy, Blanke, Pfannkuch, Reichelt & Wörn (unpublished)	0	+	+	0	0	Germany	convenience	318	10	$\alpha = .91$	BFI-2	12	$\alpha = .60 - .88$	no
Foschi & Lauriola (2014), Study 4	-	+	+	0	0	Italy	convenience	287	10	$\alpha = .90$	BFI-44	8 - 10	$\alpha = .72 - .80$	no
Freitag (2017), DUGS 2016 data	-	(+)	+	+	0	Switzerland	random	1957	1	-	BFI-S	3	$\alpha = .41 - .60$	no
Freitag (2017), PUGS 2012 data	0	0	+	0	0	Switzerland	random	822	1	-	BFI-S	3	$\alpha = .43 - .59$	no
Gallego & Oberski (2012)	0	+	+	0	0	Spain	random	3459	2	NA	BFI-10	1 - 2	NA	yes
Johann et al. (2015), Sample 1	(-)	(+)	+	0	-	Austria	random	3069	1	-	BFI-10	2	NA	no
Johann et al. (2015), Sample 2	-	(+)	(+)	+	0	Germany	random	3691	1	-	BFI-10 (selection)	1	-	no
Jordan, Pope, Wallis & Iyer (2015)	NA	NA	+	NA	NA	Canada	convenience	382	3	NA	BFI-44	8 - 10	NA	no
Mondak & Halperin (2008), Study 1	0	0	+	-	0	USA	(random)	365	1	-	ad hoc	3 - 6	$\alpha = .67 - .75$	no
Mondak & Halperin (2008), Study 2	0	+	0	0	0	USA	(random)	804	1	-	ad hoc	2	$\alpha = .39 - .57$	no
Mondak & Halperin (2008), Study 3	0	0	+	0	-	USA	random	379	1	-	ad hoc	5	$\alpha = .75 - .79$	no
Mondak (2010), Sample 3	0	0	+	0	0	USA	random	676	1	-	ad hoc	2	$r = .28 - .53$	no
Rasmussen & Nørgaard (2018), Sample 1	-	0	+	+	-	Denmark	random	2167	3	$\alpha = .72$	NEO-PI-R	12	$\alpha = .71 - .84$	yes
Rasmussen & Nørgaard (2018), Sample 2	-	0	+	(+)	-	USA	convenience	1573	3	$\alpha = .74$	BFI-44	8 - 10	$\alpha = .81 - .89$	yes
Russo & Amnå (2016a)	-	+	+	+	0	Sweden	cohort	1134	9	$\alpha = .93$	BFI-44	8 - 10	$\alpha = .75 - .85$	no ^a
Schoen & Steinbrecher (2013)	-	+	0	+	+	Germany	random	1786	2	NA	BFI-10 (selection)	1	-	no
Wang et al. (2019)	0	0	0	0	0	Taiwan	NA	839	2	NA	TIPI	2	NA	no
Vecchione & Caprara (2009), Sample 1	-	+	+	+	+	Italy	convenience	1353	10	$\alpha = .91$	BFQ-60	12	$\alpha = .80 - .90$	no ^a
Vecchione & Caprara (2009), Sample 2	NA	+	(+)	NA	NA	Italy	convenience	71	10	$\alpha = .93$	BFQ (parent)	24	$\alpha = .70 - .73$	no ^a

<i>Political Participation Propensity</i>														
Ackermann (2017)	0	+	0	0	0	Switzerland	random	1145	1	-	BFI-S	3	$\alpha = .43 - .59$	no
Brandstätter & Opp (2014)	(-)	0	+	NA	-	Germany	(random)	438	11	$\alpha = .62 - .78$	PASK5	16	$r_{tt} = .37 - .53$	yes
Chang et al. (2020)	(+)	0	0	(-)	-	diverse (20 Countries)	(random)	22896	5	NA	BFI	2	NA	no
Foschi & Lauriola (2014), Study 4	0	0	+	0	0	Italy	convenience	287	7	$\alpha = .70$	BFI-44	8 - 10	$\alpha = .72 - .80$	no
Gallego & Oberski (2012), Analysis 2	0	+	+	0	0	Spain	random	3459	4	$H = .60$	BFI-10	1 - 2	NA	yes
Gerber, Huber, Doherty, Dowling, et al. (2011), CCAP Sample	0	+	+	-	0	USA	quota	11362	3	NA	TIPI	2	NA	no
Gerber, Huber, Doherty, Dowling, et al. (2011), CT Sample	0	+	0	0	0	USA	(random)	1924	3	NA	TIPI	2	NA	no
Ha et al. (2013)	0	0	+	0	-	South Korea	random	1525	8	$\alpha = .69$	TIPI	2	$r = .04 - .45$	no
Lindell & Strandberg (2018)	0	0	+	0	(-)	Finland	quota	610 - 641	3	NA	TIPI	2	$r = .02 - .49$	no
Mondak, Canache, Seligson & Hibbing (2011), Sample 2	0	+	0	-	0	Venezuela	random	1370	1	-	ad hoc	1 - 2	NA	no
Quintelier & Theocharis (2013)	0	+	+	(-)	0	Belgium	convenience	345	6	NA	BFI-44	8 - 10	$\alpha = .74 - .84$	no
Russo & Amnå (2016b)	NA	NA	+	NA	0	Sweden	cohort	895	9	$\alpha = .66$	BFI-44	9 - 10	$\alpha = .71 - .74$	no
Vecchione & Caprara (2009), Sample 1	0	+	+	0	0	Italy	convenience	1353	5	NA	BFQ-60	12	$\alpha = .80 - .90$	no ^a
Vecchione & Caprara (2009), Sample 2	NA	0	(+)	NA	NA	Italy	convenience	71	5	NA	BFQ (parent)	24	$\alpha = .70 - .73$	no ^a
Verhulst (2012)	NA	+	+	-	NA	USA	twin study	1329	5	$\alpha = .70$	BFI-44	8 - 10	$\alpha = .74 - .86$	yes
Vitriol et al. (2019), ANES 2010-12 data	-	(+)	+	0	+	USA	random	1245 ~	15	NA	TIPI	2	NA	no
Vitriol et al. (2019), ANES 2012 data	-	+	+	+	+	USA	random	5468 ~	9	NA	TIPI	2	NA	no
Vitriol et al. (2019), ANES 2016 data	-	+	+	0	+	USA	random	3573 ~	6	NA	TIPI	2	NA	no
Vitriol et al. (2019), BES data	0	+	+	-	0	Great Britain	random	29484 ~	6	NA	TIPI	2	NA	no
Vitriol et al. (2019), CES data	+	+	+	-	-	Canada	random	3683 ~	10	NA	TIPI	2	NA	no
Vitriol et al. (2019), LAPOP data	0	+	+	+	0	Latin America (24 Countries)	random	35440 ~	5	NA	TIPI	2	NA	no
Vitriol et al. (2019), LISS data	-	+	+	0	+	Netherlands	random	5537 ~	7	NA	IPIP	10	NA	no
Vitriol et al. (2019), NZES data	0	+	+	0	0	New Zealand	random	2406 ~	3	NA	TIPI	2	NA	no
Vitriol et al. (2019), SELECTS data	-	+	+	0	0	Switzerland	random	7223 ~	7	NA	BFI-S	3	NA	no
Wang et al. (2019)	0	0	0	0	0	Taiwan	NA	839	1	-	TIPI	2	NA	no
Weinschenk & Panagopoulos (2014)	0	+	0	-	0	USA	convenience	724	4	$\alpha = .75$	TIPI	2	$r = .30 - .55$	no

Weinschenk (2013), Chapter 4	NA	(+)	NA	NA	NA	USA	cohort	2059	5	NA	ad hoc	3	$\alpha = .70$	no
Weinschenk (2013), Chapter 5	0	0	(-)	0	0	USA	convenience	758	13	$\alpha = .83$	TIPI	2	$r = .21 - .55$	no
Weinschenk et al. (2019)	0	(+)	(+)	0	0	Germany	twin study	1770	4	$\alpha = .54$	BFI-S and additional items	3 - 7	$\alpha = .53 - .81$	NA

Note. N = Neuroticism, E = Extraversion, O = Openness to experience, C = Conscientiousness, A = Agreeableness, N = Sample size, Rel. = Reliability coefficient, LV = Latent variable modelling, NA = not reported in the original publication; α = Cronbach's alpha, ω = McDonald's omega, H = Loevinger's H , r_s = Spearman-Brown correlation, r_{tt} = Test-retest correlation, BFI-10 = Ten-item Big Five Inventory (Rammstedt & John, 2007), BFI-2 = Big Five Inventory 2 (Soto & John, 2017), BFI-44 = Big Five Inventory (John et al., 2008), BFI-S = SOEP Big Five Inventory (Gerlitz & Schupp, 2005), BFQ-60 / BFQ (parent) = Big Five Questionnaire (Caprara, Barbaranelli, Borgogni, & Perugini, 1993), IPIP = 50-item International Personality Item Pool inventory (Goldberg et al., 2006), M5-50 = M5-50 Questionnaire (McCord, 2002), mini-IPIP = 20-item IPIP short form (Donnellan et al., 2006), NEO-FFI = NEO Five Factor Inventory (Costa & McCrae, 1992), NEO-PI-R = Revised NEO Personality Inventory (Costa & McCrae, 1992), PASK5 = Persönlichkeits-Adjektiv-Skalen: Fünf Faktoren Modell (Brandstätter, 2009), TIPI = Ten-Item-Personality-Inventory (Gosling et al., 2003); "(random)" = random sampling of subpopulation (not nationally representative); Coding of effects: "–" = negative effect ($p < .01$), "(–)" = negative effect ($p < .05$), "0" = no significant effect, "(+)" = positive effect ($p < .05$), "(+)" = positive effect ($p < .01$).

^a These studies also included estimates based on latent variable modelling, but we coded the effects based on more direct models (i.e., bivariate correlations).

Table 3. Summary of effects.

	Political Trust			Political Involvement		
	Trust in Politicians	Trust in Institutions	External Political Efficacy	Political Interest	Internal Political Efficacy	Political Participation Propensity
Neuroticism	---000	-----000	-----000000000+	-----000000000000	-----00000000	-----0000000000000000++
Extraversion	00000+	--000000+++	0000000000++++++	0000000++++++	00000000++++++	00000000++++++
Openness	--000+	-0000+++++	000000000000++++	000+++++	000+++++	-000000+++++
Conscientiousness	-000++	--000000+++	----0000000000++	000000000000+++++	-000000+++++	-----00000000000000+
Agreeableness	000++++	00000+++++	-000000+++++	-----0000000000000000++++	-----000000000000++	-----0000000000000000++++

Note. "–" = negative effect ($p < .05$); "0" = no significant effect; "+" = positive effect ($p < .05$)

Associations with political involvement. Previous findings were slightly more consistent for measures of political involvement compared to measures of political trust (see Table 2 and Table 3). The review revealed positive correlations between openness and political involvement in 84% of the cases (while 15% were not significant). Similarly, extraversion revealed positive correlations in 71% of the cases (while 29% were not significant), and neuroticism revealed 49% negative and 49% null-correlations. For conscientiousness, the direction of correlation depended on the specific facet of involvement: for interest and internal efficacy, most correlations with conscientiousness were positive (58% and 59%). For participation propensity, in contrast, only one study revealed a positive correlation (4%), while 33% of the correlations were negative. Finally, agreeableness revealed inconsistent associations across studies, with 60% non-significant, 21% negative, and 19% positive correlations. Patterns were largely consistent across involvement facets (except for the opposing patterns regarding conscientiousness).

Discussing inconsistency. Across all comparisons, large proportions of studies resulted in insignificant associations—including studies where sample sizes were large enough to detect small effects¹ (e.g., Freitag, 2017; Mondak & Halperin, 2008; Vitriol et al., 2019; Wang et al., 2019). As argued by Bakker and Leikes (2018) and Credé et al. (2012), the use of Big Five short scales causes unreliable and content deficient measurement and attenuates correlations to a degree where medium sized effects ‘disappear’ as false negatives (cf. Bakker & Leikes, 2018). In light of these arguments, it is alarming that 48% of all reported associations in our review were based on Big Five measures of two items per factor or less, corroborating the suspicion that short scales contribute to the inconclusive evidence. It is further substantiated by the fact that reliability (in the sense of internal consistency) in studies using two-item scales ranged

¹ As sample sizes appear large enough in most studies—out of $k = 56$ independent samples, 64% were based on 1000 participants or more, and only 9% on 300 participants or less—a lack of test-power does not seem to be a dominant issue.

between values as low as .02 and .59. In comparison, studies using 3 to 7 items per factor reported coefficients between .41 and .81 and studies of 8 items and more reported coefficients between .60 and .90. While lower values are to be expected for short scales (at least for Cronbach's α ; Kline, 2016, p. 91), values approaching zero still seem worrying. Some authors defended low inter-item correlations to be a necessary consequence of selecting items of different content within a domain (e.g., Ha et al., 2013), which exemplifies how the trade-off between internal consistency and content validity of broad factors (see McCrae, 2015, p. 103) is especially difficult to solve for short scales.

For general attitudes towards politics, many studies relied on single-item measures (most pronounced in the case of political interest) and—for some studies—multi-item scales of limited reliability. While the problem of content deficiency should be less of a problem in these cases because the underlying constructs are more narrow and less complex, limited reliability (and thus increased random error variance) is problematic in these cases as well.

One way of dealing with limited reliability, is to correct for measurement error, for example by estimating associations between latent variables, as reported in seven of the reviewed publications: Five publications used different versions of structural regression models (Brandstätter & Opp, 2014; Rasmussen & Nørgaard, 2018; Russo & Amnå, 2016a; Vecchione & Caprara, 2009; Verhulst, 2012). In addition, Gallego and Oberski (2012) applied latent class path models and Mays (2015) used latent growth curve models where at least the Big Five were estimated as latent variables. By doing so, their estimated correlation or regression parameters were based on the shared variance across items and corrected for some of the random error variance (Kline, 2016, p. 90). The remaining studies did not make use of this statistical tool—or other ways of correcting for measurement error—and must be assumed to underestimate the effects to the degree that reliability was limited.

Limitations of the literature review. There are other potential explanations for inconsistencies between study findings that we did not focus on. One important line of research

investigates context factors as moderators for the association between attitudes towards politics and general personality (e.g., Ackermann, 2017; Chang et al., 2020). The way we coded the primary studies, however, does not allow for systematic tests of these factors: Given our primary interest in issues of measurement and factorial structure, our main units of analysis were *studies*, not *samples* as would be necessary to systematically assess context differences.

Finally, a note regarding effect sizes: as a meta-analytical examination would go beyond the scope of this paper, we do not draw any conclusions regarding the exact size of effects across previous studies. To have some preliminary baseline of expectation, however, we can build on the analysis by Vitriol et al. (2019), who examined ten large datasets from omnibus surveys and estimated mean effect sizes to be rather small (e.g., $\rho = .12$ for openness to experience and political interest and smaller for all other comparisons), which is in line with meta-analytic findings regarding the Big Five and conservatism ($\rho = -.18$ for openness and $\rho = .10$ for conscientiousness; Sibley et al., 2012). However, it would be plausible to assume that these effect estimates underestimate the population effects, given that the surveys included by Vitriol et al. (2019) mostly rely on short scales of presumably limited bandwidth and reliability, which the authors—focusing on a different research question—did not correct for.

The present studies

We conducted two online survey studies with the goal of mapping general political trust and involvement in the personality space. We focused on the hierarchical structure of (a) attitudes towards politics and (b) personality, given the lack of consideration of these issues in previous research. In Study 1, we tested the hypothesis that the Big Five and attitudes towards politics are primarily associated at the general level (i.e., generalized tendencies of political trust and involvement) rather than the specific level. In Study 2, we assessed whether different facets within the same Big Five domains yield differential associations with general political trust (and involvement, respectively), as within-domain differences might in part be responsible for the inconclusive previous results (cf., Gerber et al., 2011b, p. 280). In both studies, we

applied structural equation modeling (SEM) to estimate correlations between latent variables and compensate for unreliability. All models were estimated in R (4.0.2; R Core Team, 2018), based on the lavaan package (0.6-7; Rosseel, 2012). All data and R scripts are available at https://osf.io/mrvnu/?view_only=a4c5c26756db466f8b04edf06c60daba.

Study 1

Our literature review has revealed that for most Big Five domains, the three specific facets of political trust (and of political involvement, respectively) have yielded similar tendencies across studies. For example, trust in politicians, institutions, and the political system all yielded predominantly positive associations with agreeableness. For some comparisons, however, the specific facets yielded distinct patterns of correlations. This was most pronounced for conscientiousness and involvement, where political interest and internal efficacy showed predominantly positive correlations, while the propensity to participate yielded only one positive, but many negative correlations. Some researchers have suggested that the specificity of different facets of attitudes towards politics should reveal specific patterns of association, arguing against the use of aggregated indices (e.g., Gabriel & Völkl, 2005, pp. 179–180; Weinschenk, 2017, p. 1409). We argue, in contrast, that more generalized and less contextualized attitudinal tendencies are more plausible to display associations with personality traits. Study 1 therefore aims to compare these two perspectives and to test whether the Big Five relate differentially to specific attitudes towards politics or—as we hypothesize—relate primarily to the underlying dispositional tendencies of general political trust and involvement.

Method

In order to separate relations at the level of specific attitudes (e.g., trust in politicians) from relations at the general level (e.g., general political trust), we specified a *bifactor model* (also called *direct hierarchical model*; see Gignac, 2008), where each item loaded on a specific factor and an orthogonal general factor. Similar to higher-order models, bifactor models "also concern situations where several correlated specific constructs make up a more general

construct of interest" (Kline, 2016, p. 319). In contrast to higher-order models, however, specific factors in bifactor models can be interpreted to display only specific variance not shared with the general factor, which makes them a useful tool to distinguish the predictive validity of both hierarchical levels (Gignac, 2008).

Sample. An online sample was recruited in October 2016 by a professional survey agency (www.respondi.com) based on quotas representing the German adult population regarding gender, age and level of education. Sample size was based on a power analysis specified for the detection of small effects ($r \approx .10$). After detection of implausible response patterns and listwise exclusion of missing values, the sample consisted of $N = 988$ cases, with a mean age 51.6 years ($SD = 16.5$ years), 51.5% females, and 41.5%, 36.2%, and 22.3% with low, medium, and high levels of education, respectively. Participants gave their informed consent and received a financial incentive.

Measures. We used two nine-item scales based on Halmburger, Baumert et al. (2019) to measure *trust in politicians* and *trust in the political system*, both yielding high internal consistencies (McDonald's $\omega = .94$, and $\omega = .93$, respectively). As each of these scales is theoretically assumed to contain three sub-dimensions (cf. Halmburger, Baumert et al., 2019), residuals of the respective items were allowed to be correlated in the models (see Figure 1). We also used five items from GESIS (2015) to measure *trust in political institutions* ($\omega = .91$), and five items from Vetter (1997) and Rattinger et al. (2016), to measure *external political efficacy* (or *perceived system responsiveness*; $\omega = .72$). Furthermore, we measured *political interest* using the five-item scale by Otto and Bacherle (2011; $\omega = .94$); *internal political efficacy* using a translation of the ten-item scale by Caprara et al. (2009; $\omega = .91$), and *political participation propensity* by asking about past participation in eight different political activities (ordinal $\omega = .89$). As the participation propensity items were highly skewed, we created four parcels for the use in SEM by combining items of high and low item-total correlation (Little, 2013, p. 24), thereby enabling maximum-likelihood based model estimation. Finally, we assessed the *Big*

Five domains with three items each, using the BFI-S (Gerlitz & Schupp, 2005), which yielded internal consistencies of $\omega = .67$ (N), $\omega = .72$ (E), $\omega = .61$ (O), $\omega = .64$ (C), and $\omega = .54$ (A). All item wordings are reported in the online supplements.

Results

We specified two separate models to estimate the Big Five associations with political trust and involvement, respectively. While a joint model could have controlled for the positive correlation general political trust and involvement (Bromme & Rothmund, in press), it was too complex to converge based on the available indicators. As an additional advantage, not controlling for shared variance between both general attitudes comes closer to the analysis of zero-order correlations, facilitating comparison to the previous results. In the first model, we specified a general factor of political trust, as well as four specific factors of trust in politicians, institutions, the political system, and the system's responsiveness, all of which were set to be orthogonal (see Figure 1).

Figure 1. Specification of Model 1 (Big Five and bifactor model of political trust). Error residuals are not displayed.

While orthogonality is not a general requirement of bifactor models, it best suits our purpose because each specific factor represents only its specificity, making it possible to identify the exact sources of covariation with the Big Five (cf. Gignac, 2008). Based on maximum likelihood estimation, model fit was acceptable (CFI = .943, RMSEA = .046, SRMR = .047). Standardized loadings on the general factor were substantially larger (Md = .77) than the specific factors' loadings (Md = .24; see online supplements for all parameter estimates).

Table 4 displays the correlations between latent variables (omitting Big Five inter-correlations; see online supplements). We found several significant correlations of small to medium effect size (cf. Cohen, 2013). For openness and agreeableness, significant correlations were limited to general political trust, confirming our assumptions regarding the level of aggregation. Meanwhile, neuroticism (-) and conscientiousness (-) were significantly correlated with specific components of political trust. Interestingly, neuroticism was also correlated to general political trust, indicating that some components of the neurotic domain are related to all aspects of political trust (in line with the rather consistent tendency of previous literature), while some of the shared variance is specific to trust in the political system and institutions (with emotionally stable people being more trusting).

Table 4. Latent correlation estimates in bifactor models (Study 1).

		Neuroticism	Extraversion	Openness	Conscientiousness	Agreeableness
Model 1	General political trust	-.085 *	-.028	.156 ***	-.076	.096 *
	Specificity of trust in politicians	-.065	.024	-.045	.030	.049
	Specificity of system trust	-.269 **	.053	-.033	.032	-.071
	Specificity of institutional trust	-.269 ***	.062	-.043	.022	.074
	Specificity of external efficacy	-.146 *	-.043	-.009	-.129 *	-.086
Model 2	General political involvement	-.305 ***	.321 ***	.406 ***	.217 ***	.056
	Specificity of political interest	-.015	-.016	.019	-.027	-.008
	Specificity of internal efficacy	-.037	.004	.114	-.087	-.049
	Specificity of participation propensity	.147 **	-.031	.035	-.205 ***	-.077

Note. General factors in bold. $N = 988$. * $p < .05$, ** $p < .01$, *** $p < .001$.

Model 2 was specified analogously to Model 1, but based on the measures of political interest, internal efficacy, and participation propensity. Model fit was slightly worse (CFI =

.921, RMSEA = .052, SRMR = .051). In both models, much of the misspecification could be traced back to cross-loadings in the Big Five measure (e.g., items of extraversion and neuroticism loading on the latent agreeableness variable), which is an almost unavoidable problem in confirmatory factor analyses on Big Five inventories because of the complex and partly overlapping domains (Costa & McCrae, 1995, p. 25; Hopwood & Donnellan, 2010). Again, standardized item loadings of the general factor ($M_d = .62$) were larger than the specific factors' item loadings ($M_d = .50$; see online supplements).

As displayed in Table 4, the latent factor of general political involvement yielded substantial correlations with neuroticism (-), extraversion, openness, and conscientiousness. The strongest correlation was observed between general involvement and openness ($\hat{\rho} = .41$), which has also been the most consistent association in the previous literature (cf. Table 3). In addition to the general involvement effect (N- and C+), the specific component of participation propensity displayed effects in the opposite direction (N+ and C-). For example, while more conscientious people appeared to be more prone to political involvement in general, the propensity to actually participate in political activities seemed to be inhibited (compared to strong general involvement). This is in line with the respective finding from our literature review: Previous studies had produced mostly positive associations of conscientiousness with political interest and internal efficacy, but mostly non-significant (and several negative) associations with participation propensity (see Table 3). If conscientiousness is positively linked to the general self-engagement with politics, but at the same time negatively linked to the propensity to act on it, such a pattern is plausible to emerge across studies.

Study 2

The literature review has confirmed that previous research often neglected the breadth and multidimensionality of the Big Five domains by omitting part of their breadth in the measures, which might be one reason for inconsistent correlational findings (cf. Credé et al., 2012). In Study 2, we thus applied the IPIP-NEO-120 inventory designed to capture the 30

facets (Johnson, 2014), in order to test whether different facets within the same domain yield different associations with general attitudes towards politics. In addition, by investigating facet level correlations, we aimed to make fine-grained adjustments to our understanding of the content of the higher-order factors of general political trust and involvement.

Hypotheses. We pre-registered a series of hypotheses about correlational patterns between the higher-order attitudes towards politics and the Big Five domains and facets (see Tables 5 and 6, respectively). The rationale behind each hypothesis has been documented in the pre-registration (see https://osf.io/mrvnu/?view_only=a4c5c26756db466f8b04edf06c60daba).

Method

Using SEM, we specified hierarchical political attitude models with general political trust and involvement as higher-order factors above the more specific constructs², and estimated the correlations between these higher-order factors and latent factors of (a) Big Five domains, and (b) Big Five facets.

Sample. Data was collected online in Germany in December 2017 by the survey agency respondi (www.respondi.com), applying representative quotas for age, gender and level of education. Similar to the German adult population, the sample included 49.8% females, a mean age of 44.9 years ($SD = 14.4$ years), and 31.4%, 32.3%, and 36.2% of low, medium and highly educated participants, respectively. Sample size was planned based on the test power necessary to detect effect sizes similar to those from Study 1 ($r < .10$). After data cleaning, the sample size was $N = 795$. Given the high number of personality items, listwise exclusion of missing values would have decreased sample size by about one third. We thus excluded cases with missing values for each analysis separately, minimizing the loss of information.

Measures. Due to the necessarily large number of facet items, we had to reduce the number of items measuring attitudes towards politics compared to Study 1. Based on the Study

² For an in-depth analysis of similar models based on the same data, see Bromme & Rothmund (in press).

1 measures, short scales were created by choosing items with the highest item-total correlation, but maintaining all sub-dimensions within multidimensional scales. We selected three items from Halmburger, Baumert et al. (2019) to measure *trust in politicians* ($\omega = .87$), three items on *trust in institutions* (i.e., the parliament, federal government, and political parties; $\omega = .91$), the three items of *external efficacy* proposed by Vetter (1997; $\omega = .69$), but omitted the *trust in the political system* scale. Furthermore, we used three items from the *political interest* scale by Otto and Bacherle (2011; $\omega = .95$), a four-item *internal efficacy* short scale (as suggested by Caprara et al., 2009; $\omega = .84$), and four items of *political participation* ($\omega = .74$).

To measure the Big Five facets, we applied a German version of the IPIP-NEO-120 (Johnson, 2014), which was constructed to capture the same structure as the NEO-PI-R using four items for each of the 30 facets (i.e., 24 items per domain). Johnson (2014) demonstrated the inventory's construct validity. The translation is based on work by Treiber, Thunsdorff, Schmitt, and Schreiber (2013), with minor adjustments to some of the items by ourselves (see online supplements). Note, that we used the facet labels of the IPIP-NEO-120 throughout this paper, which differ from the NEO-PI-R labels (Costa & McCrae, 1992), but describe the same behavioral content (see Johnson, 2014). The neuroticism items yielded an internal consistency of $\omega = .89$, with facet level values of $\omega = [.77, .80, .85, .55, .62, .63]$. Internal consistencies for the extraversion items was $\omega = .88$ (and $\omega = [.70, .70, .81, .44, .84, .81]$), for the conscientiousness items $\omega = .89$ (and $\omega = [.74, .85, .66, .66, .68, .81]$), and for the agreeableness items $\omega = .81$ (and $\omega = [.69, .79, .69, .69, .67, .72]$). The *liberalism* (O6) facet items did not provide a consistent scale (Cronbach's $\alpha = -.24$), raising doubts about the validity of the translated items of this facet. We thus excluded the liberalism items from the analysis. The remaining 20 items of the openness domain and its remaining facets yielded acceptable internal consistencies ($\omega = .81$ and $\omega = [.75, .72, .57, .68, .69]$).

Modelling strategy. In all models, general political trust and involvement were included simultaneously—as theory suggests a positive correlation between both (Bromme

& Rothmund, in press)—and specified as higher-order factors. The Big Five were modelled separately for each domain: Given the particular complex internal structure of facet-level Big Five inventories (Costa & McCrae, 1995), it is hardly possible to pre-specify a realistic model of all 30 facets' cross-loadings (Hopwood & Donnellan, 2010). To bypass this problem, we followed the approach by Kajonius and Johnson (2019) to model each domain separately, and used their IPIP-NEO-120 model fit as reference findings (as recommended by Hopwood & Donnellan, 2010). Estimating several separate models had the additional advantage of maintaining larger case numbers, as missings were excluded for each model separately.

For the domain-level models, the Big Five domains were specified as first-order latent variables (i.e., all 24 items loaded directly on the domain factor). Facets were represented by allowing correlated residuals within each facet-item cluster. Fit indices and domain-level correlation estimates are displayed in Table 5. For the facet-level models, we specified correlated latent variables for each facet within a domain. Fit indices and facet-level correlation estimates are displayed in Table 6. All models were estimated based on the ML estimator and parameter estimates are reported in the online supplements.

Results

Both, domain- and facet-level models yielded fit indices similar to those reported by Kajonius and Johnson (2019), with median CFI = .921 and median RMSEA = .044. While the CFI values fall below established fit criteria (cf. Hu & Bentler, 1999), this is to be expected for multidimensional personality scales, due to facets' cross-loadings and because facets are not locally independent within domains (i.e., some facets share additional variance beyond the domain variance; Hopwood & Donnellan, 2010). To test whether misspecification biased the correlations, we estimated a series of alternative models (see online supplements): First, domains specified as higher-order factors yielded similar fit (median CFI = .910) and largely consistent correlational patterns (with the exception of Agreeableness, where the higher-order models yielded larger correlations). Second, estimating each facet in a separate model improved

fit (median CFI = .956) but yielded identical patterns of correlations. Third, the inclusion of a latent acquiescence factor (which was allowed to correlate with all other latent factors) slightly improved model fit (median CFI = .928). Including acquiescence factors resulted in notably larger correlations of the agreeableness domain and some of the agreeableness facets (see discussion). Correlational patterns of the remaining four domains remained largely unaffected.

Table 5. Latent correlation estimates for Big Five domains (Study 2).

		General Political Trust		General Political Involvement		Model Fit			
		Hypo.	$\hat{\rho}$	Hypo.	$\hat{\rho}$	N	CFI	RMSEA	SRMR
Model 1	Neuroticism	–	-.200 ***	–	-.383 ***	735	.927	.043	.056
Model 2	Extraversion	.	.281 ***	+	.413 ***	731	.893	.052	.064
Model 3	Openness	.	.176 ***	+	.679 ***	730	.936	.040	.054
Model 4	Conscientiousness	–	.035	.	.303 ***	723	.928	.042	.059
Model 5	Agreeableness	+	.014	.	.061	739	.906	.047	.088

Note. Hypo. = Hypothesized direction of effect (“.” = no hypothesis). * $p < .05$, ** $p < .01$, *** $p < .001$.

Domain-level correlations (Table 5) were only partially consistent with the hypotheses for political trust: Contrary to the expectations, conscientiousness and agreeableness did not yield significant correlations with political trust. Instead, extraversion and openness yielded non-hypothesized positive effects.

For political involvement, correlational patterns were fully consistent with hypotheses and Study 1 results. Effect sizes, however, were unusually large (particularly the correlation between openness and involvement: $\hat{\rho} = .68$, which qualifies as large effect; Cohen, 2013). We attribute these effect sizes to (a) the latent variable modelling, partialing out item-specific residual variance (calculating the same correlation between observed variables yielded $r = .42$), and (b) the operationalization of involvement as a broad higher-order dimension.

Table 6. Latent correlation estimates for Big Five facets (Study 2).

		General Political Trust		General Political Involvement		Model Fit			
Facet		Hypo.	$\hat{\rho}$	Hypo.	$\hat{\rho}$	N	CFI	RMSEA	SRMR
Model 6	N1: Anxiety	–	-.257 ***	–	-.296 ***	735	.919	.045	.052
	N2: Anger	–	-.168 ***	.	-.180 ***				
	N3: Depression	–	-.282 ***	–	-.324 ***				

	N4: Self-Consciousness	.	-.101	.	-.454 ***				
	N5: Immoderation	.	.037	.	-.164 **				
	N6: Vulnerability	.	-.133 **	–	-.373 ***				
Model 7	E1: Friendliness	+	.269 ***	.	.349 ***	731	.899	.050	.057
	E2: Gregariousness	.	.283 ***	.	.343 ***				
	E3: Assertiveness	–	.202 ***	+	.439 ***				
	E4: Activity Level	.	.195 **	+	.421 ***				
	E5: Excitement Seeking	.	.042	.	.157 **				
	E6: Cheerfulness	.	.261 ***	.	.329 ***				
Model 8	O1: Imagination	.	.015	.	.068	730	.923	.043	.057
	O2: Artistic Interest	.	.199 ***	.	.540 ***				
	O3: Emotionality	.	.179 ***	.	.287 ***				
	O4: Adventurousness	.	.076	+	.389 ***				
	O5: Intellect	.	.146 **	+	.746 ***				
	O6: Liberalism [excluded]	.	-	.	-				
Model 9	C1: Self-Efficacy	.	.062	+	.282 ***	723	.925	.042	.055
	C2: Orderliness	.	-.028	.	.068				
	C3: Dutifulness	.	-.092 *	.	.148 **				
	C4: Achievement-Striving	.	-.008	.	.191 **				
	C5: Self-Discipline	.	.070	.	.359 ***				
	C6: Cautiousness	.	.105 *	–	.300 ***				
Model 10	A1: Trust	+	.495 ***	.	.275 ***	739	.899	.048	.069
	A2: Morality	+	-.052	+	.044				
	A3: Altruism	+	.115 *	+	.193 ***				
	A4: Cooperation	+	.073	.	.055				
	A5: Modesty	+	-.153 ***	–	-.397 ***				
	A6: Sympathy	+	.156 ***	.	.346 ***				

Note. Hypo. = Hypothesized direction of effect (“.” = no hypothesis). * $p < .05$, ** $p < .01$, *** $p < .001$.

The focus of Study 2 was on facet-level effects (see Table 6). As expected, the analyses revealed several instances where facets within a domain differed substantially regarding the size and significance of correlations. For example, correlation estimates of the six neuroticism facets and political trust differed between $\hat{\rho} = .04$ and $\hat{\rho} = -.28$, four of them significantly differing from zero. Similarly, effect sizes for political involvement differed substantially within all domains, most remarkably between the openness facets, ranging from $\hat{\rho} = .07$ (*imagination*) to $\hat{\rho} = .75$ (*intellect*). However, we observed only one case, where facets within a domain yielded substantial effects in opposing directions: The *modesty* facet was negatively

related to political trust and involvement (with $\hat{\rho} = -.15$ and $\hat{\rho} = -.40$, respectively), contrary to several other agreeableness facets with positive correlations. In contrast to our hypotheses, neither the extraversion facets and political trust, nor the conscientiousness facets and political involvement yielded similar opposing directions of associations.

Comparing our results to the literature review, it appears that facet-level differences may indeed account for some of the inconsistent results of previous research. Particularly conflicting findings had been reported for (a) trust and conscientiousness, (b) involvement and conscientiousness, and (c) involvement and agreeableness (see Table 3). For all these comparisons, our analyses revealed differential patterns at facet-level, suggesting that the direction and size of correlations between general attitudes towards politics and the Big Five depend on the specific content represented in the Big Five measures. For instance, an indicator of agreeableness that focusses on *altruism*, *sympathy*, or *trust* (vs. *cooperation*, *morality*, or *modesty*) might produce positive (vs. null or negative) effects, which corroborates the need for caution when using Big Five short scales (cf. Credé et al., 2012).

Interestingly, for some instances, the pattern of correlations seemed to align with the Big Five aspects, as described by DeYoung et al. (2007). For instance, the agreeableness facets *altruism*, *sympathy*, and *trust*, which were positively associated with political trust and involvement, correspond more strongly to the “compassion” aspect of agreeableness, while *cooperation*, *morality*, and *modesty* correspond more strongly on the “politeness” aspect of agreeableness (cf. DeYoung et al., 2007, p. 884). Other similarities to the aspects emerged for involvement and openness (where “intellect” is an aspect by itself), and for involvement and conscientiousness (where “orderliness” is an aspect by itself).

The peculiar negative correlations of *modesty* might be interpreted in a different manner: Some studies found this facet to be only weakly related to the agreeableness domain (e.g., John et al., 2008, p. 135). Kajonius and Johnson (2019) therefore suggested that it might rather represent the sixth factor from the HEXACO model, *honesty-humility*. This explanation seems

plausible, given the facet's content—Costa and McCrae (1992) characterized modesty high-scorers as “humble and self-effacing although they are not necessarily lacking in self-confidence or self-esteem” (p. 18)—and because modesty has been shown to correlate more strongly with *HEXACO honesty-humility* than with *Big Five agreeableness* (see Ashton & Lee, 2005, Table 2). The diverging correlations with the external variables of political trust and involvement strengthen the standpoint of HEXACO advocates and suggest that honesty-humility may play an independent role for political attitudes.

Other findings worth highlighting are the large effects ($\hat{\rho} > .40$; cf. Cohen, 2013) between political involvement and various facets, namely *intellect* (O5; $\hat{\rho} = .75$), *artistic interest* (O2; $\hat{\rho} = .54$), *self-consciousness* (N4; $\hat{\rho} = -.45$), *assertiveness* (E3; $\hat{\rho} = .44$), and *activity level* (E4; $\hat{\rho} = .42$). In particular, the peak correlation between intellect and political involvement warrants some discussion. First, it should be noted that alternative model specifications (i.e., modelling all facets separately or including an acquiescence factor; see online supplements) did not substantially change the correlation ($\hat{\rho} = .72$ and $\hat{\rho} = .74$, respectively). Second, the intellect items of the IPIP-NEO-120 do not include any political content (“Love to read challenging material”, “Avoid philosophical discussions” [reversed], “Have difficulty understanding abstract ideas” [reversed], “Am not interested in theoretical discussions” [reversed]), ruling out inflated correlations by confounded item content. The items appear to represent a person's appeal to intellectually challenging topics and activities, which is in line with the facet's conceptualization by Costa and McCrae (1992) as “intellectual curiosity”, “an active pursuit of intellectual interests”, and “a willingness to consider new, perhaps unconventional ideas” (p. 17). Given that politics is an intellectually challenging topic (van Deth, 1990, p. 278), people who find appeal in intellectual challenges, should—in principle—find appeal in politics. The shared variance of more than 50% confirms that individual differences are strongly interrelated, which even raises the question of how distinct both concepts are.

The second largest correlation—between political involvement and *artistic interest*—is less intuitive. Costa and McCrae (1992) conceptualized this facet around “a deep appreciation for art and beauty” (p. 17), which corresponds to the IPIP-NEO-120 items (e.g., “Believe in the importance of art”). Trying to make sense of this facet’s large correlation with political involvement, artistic interest might either be confounded with intellect, inflating the correlation—in our model, both facets correlated with $\hat{\rho} = .89$ —, or the artistic interest items might tap into a trait that is larger in scope than just referring to “art and beauty” (Costa & McCrae, 1992, p. 17) but rather covers other areas of interest as well.

General discussion

Our systematic literature review revealed substantial inconsistencies in previous findings on general attitudes towards politics and the Big Five but also some robust associations (e.g., a consistently positive correlation between openness and political involvement; see Table 3). We added two survey studies to shed light on largely unexplored issues: In Study 1, we used bifactor models to separate the effects of general political trust and involvement, from the effects of their specific components. In Study 2, we investigated differential associations of the Big Five at facet level.

Understanding inconsistent findings

Study 1 revealed only two cases, where the specificity of attitudes towards politics might produce seemingly inconsistent results. For instance, participation propensity yielded specific correlations towards neuroticism and conscientiousness that opposed the overall correlational pattern of general political involvement, which might cancel each other out to some degree (see Table 4). Overall, however, the general factors of trust and involvement clearly dominated the correlations towards the Big Five, while specificity of the lower-order measures of attitudes towards politics did not play a decisive role.

In contrast, specificity did play an important role on the personality side, as shown in the facet-level analyses of Study 2. While trust and involvement were significantly correlated

to some facets in all five domains, there was barely any case, where all facets within a domain yielded significant correlations (see Table 6). In other words, there was barely any case, where the whole bandwidth of a domain was associated with either general political trust or involvement. Instead, domain-level correlations appear to be driven by some facets within that domain (or—in some cases—by one of the two aspects within that domain; cf. DeYoung et al., 2007). Consequently, inappropriately low bandwidth measures (e.g., domain measures of only one or two items—as documented for almost half of the cases in our literature review) run a strong risk of missing the relevant content, and thus producing false negative findings.

In addition, the case of the *modesty* (A5) facet raised the suspicion, that some of the inconsistent findings regarding agreeableness (Table 3) might be attributed to the fact that the HEXACO factor honesty-humility is hidden in some Big Five agreeableness measures (cf. Ashton & Lee, 2005; Kajonius & Johnson, 2019). Our results thus suggest that honesty-humility and agreeableness yield opposing associations with political trust and involvement.

In addition to these bandwidth problems, the literature review demonstrated that many studies used Big Five scales of low internal consistency (an inter-item correlation of $r = .02$ in the most extreme case; see Table 2), indicating that low reliability might have impeded the robustness and conclusiveness of results across studies. Since short-scales of broad constructs cannot achieve high consistency and large bandwidth at the same time, the obvious consequence should be longer scales (cf. Bakker & Leles, 2018; McCrae, 2015, p. 103). Moreover, our own analyses demonstrated that latent variable modelling can be useful to partial out some of the error variance and might thus be better able to detect the small effects especially relevant in the study of political trust.

What can be learned about general attitudes towards politics?

The results of Study 1 corroborate the meaningfulness of the general tendencies underlying different facets of political trust and involvement, given that their associations with

the Big Five were observed mainly at the level of these general tendencies, not the specificity of their components (see Table 4). We will elaborate the implications for each tendency in turn.

General political trust. The largest correlation of general political trust was observed for the *trust* (A1) facet ($\hat{\rho} = .50$)—unsurprisingly, as this facet is defined by generalized trust towards others (cf. Costa et al., 1991, p. 888), which has been shown to correlate substantially with trust in politicians (e.g., Baumert, Halmburger, Rothmund, & Schemer, 2017), trust in institutions (e.g., Zmerli & Newton, 2008), and trust in the political system (e.g., Schiffman, Thelen, & Sherman, 2010). Based on our findings, it is conceivable that these specific correlations are actually reflections of the shared variance between a general tendency to trust others (i.e., the Big Five *trust* facet) and general political trust.

Moreover, across both studies and largely in line with the literature review, general political trust was negatively correlated with neuroticism (*anxiety* and *depression*, particularly), and positively with openness (*artistic interest* and *emotionality*, particularly). Aside from the *trust* facet correlation, however, all observed effects were of moderate size at most (cf. Cohen, 2013). Accordingly, a characterization of general political trust by means of its personality correlates is disputable, as it appears that large shares of the variance in general political trust remain unexplained by the Big Five. This in line with theories of political trust attributing individual differences to political socialization or evaluations of current system performance, rather than dispositional explanations (e.g., Mishler & Rose, 1997). Findings of interindividual stability (e.g., Schoon & Cheng, 2011), and non-zero heritability (e.g., Dawes et al., 2014) on the other hand, underline a dispositional perspective on political trust. In sum, it appears that general political trust might comprise both, characteristics of a trait, as well as reactivity to the environment (see Baumert et al., 2017; Bromme & Rothmund, submitted).

General political involvement. Based on our findings, general political involvement can be characterized by positive associations with openness (particularly *intellect*), extraversion (particularly *assertiveness* and *activity level*), and conscientiousness (particularly *self-*

discipline), as well as negative associations with neuroticism (particularly *self-consciousness*) and the *modesty* facet of agreeableness (a conceivable proxy of HEXACO honesty-humility; see Kajonius & Johnson, 2019). It appears that people who are involved in politics tend to be attracted by its intellectual challenge. They tend to be energetic and able to stick to tasks they started. They tend not to be easily shamed, nor to be particularly humble.

Notably, general political involvement yielded substantially larger correlations than political trust, with large effect sizes for both, facet and domain level. We argue that the consistently strong correlations with basic personality traits speak for the dispositional nature of general political involvement.

Limitations and future directions

The Big Five (domains and facets) are potentially correlated with response styles like acquiescence (e.g., Wetzel & Carstensen, 2017, p. 359). Since most of the political attitude items used in our studies were positively worded (in particular for involvement), it is conceivable that some of the correlations between attitudes towards politics and Big Five might have been inflated by acquiescence. To investigate this possibility, we re-estimated the Study 2 models including an acquiescence factor which we specified as a latent factor with loadings on all items, fixed to either 1 or -1 depending on whether items were reverse-coded. As reported in the online supplements, correlation estimates were largely unaffected, with some exceptions: Contrary to our original models, the agreeableness domain score yielded significant positive correlations for political trust and involvement ($\hat{\rho} = .16$ and $\hat{\rho} = .33$, respectively), and some facets yielded stronger correlations towards political involvement (strongest increases for *cooperation* [$\Delta\hat{\rho} = .25$], *cautiousness* [C6; $\Delta\hat{\rho} = .23$], and *morality* [$\Delta\hat{\rho} = .22$]). If anything, our models might have underestimated these specific effects, rather than inflated. Meanwhile, this also speaks to the robustness of the remaining results.

Another limitation regards the indicators used to measure the Big Five in our studies. With three items per domain in Study 1 and four items per facet in Study 2, the scales meet only

minimum requirements of length and might thus provoke similar criticisms as we noted regarding the previous literature. However, the results by Bakker and Leidesma (2018) showed that three- and four-item personality scales already perform substantially better than two-item scales. Moreover, both inventories have been validated (Gerlitz & Schupp, 2005; Johnson, 2014), internal consistencies were adequate (aside from the excluded *liberalism* facet scale), and the pattern of results was largely consistent across both studies.

Finally, our empirical results are based on only two samples, and the literature review focused on the direction, not the size of associations. An extensive meta-analysis would therefore be desirable in order to gain robust effect size estimates (see Vitriol et al., 2019, as a starting point). However, it would require to deal with the psychometric problems identified in our literature review, in order to avoid systematic underestimation of effect sizes.

Conclusion

The study of Big Five personality traits and general attitudes towards politics has produced inconsistent findings, as our literature review confirmed. Judging from our empirical studies, more conclusive results might be obtained if future research focused on a higher level of political attitudes (i.e., *higher-order* political trust and involvement), but lower levels of the personality hierarchy (i.e., Big Five *aspects* or *facets*), bringing both sides closer to a mutual level of breadth.

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