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The Psychological Roots of Populist Voting: Evidence from the United States, the Netherlands and Germany

Abstract

What are the psychological roots of support for populist parties or outfits such as the Tea Party, the Dutch Freedom Party or Germany's *Die Linke*? Populist parties have as common denominator that they employ an anti-establishment message, which they combine with some 'host' ideology. Building on the elective affinity metaphor we expect that a voter's personality should match with the message and position of her party. We theorize that a low score on the personality trait Agreeableness matches with the anti-establishment message and should predict voting for populist parties. We find evidence for this hypothesis in the United States, the Netherlands and Germany. The relationship between low Agreeableness and voting for populist parties is robust controlling for other personality traits, authoritarianism, socio-demographic characteristics and ideology. Thus, explanations of the success of populism should take personality traits into account.

Keywords: Populism, Personality, Agreeableness, Voting behaviour.

The cover of the first 2014 issue of *The Economist* (2014) featured a floating tea pot carrying three European populist politicians accompanied by the comment ‘Europe’s Tea Parties’. The journal’s leading article describes that on both sides of the Atlantic populist parties¹ are experiencing electoral success and gaining political clout. Tea Party candidates, the Dutch and Austrian Freedom Parties, the French *Front National*, and Germany’s *Die Linke* are all examples of successful populists (Mudde & Rovira Kaltwasser, 2012). These parties differ in terms of ideology. Some are strongly pro-gay marriage but others fiercely oppose it. Some worship the invisible hand of the market but others sanctify the universal welfare state. One of the essential common denominators of these parties – and of virtually all definitions of populism – is their anti-establishment message (Rooduijn, 2014), which they combine with a ‘host’ ideology – and depends on the particular political context. Thus, what these parties have in common is their portrayal of the political elite – in Washington, The Hague, Berlin, etc. – as evil, working for their own gain, and disinterested in the common people (Mudde 2004).

Several election studies give detailed accounts as to why voters vote for populists. Low social and economic status (Arzheimer & Carter 2006; Betz 1994; Lubbers & Scheepers 2000; Lubbers et al. 2002), ideological proximity (van der Brug et al. 2000, 2005), political cynicism (Bergh 2004; Schumacher & Rooduijn 2013) and populist anti-establishment attitudes (Akkerman et al. 2013) are identified as explanatory factors of populist voting.

According to political psychology research, factors such as ideology and cynicism are rooted in personality (Gerber et al., 2010; Jost et al., 2003; Mondak & Halperin, 2008). The ‘elective affinity model’, assumes that the association between psychological dispositions and political attitudes is a ‘functional match’ between the symbolic nature of a political issue and

Notes

¹ The Tea Party is a faction within a party.

the goals and motives of personality traits (Caprara & Zimbardo, 2004; Jost et al., 2009). We expand this argument and theorize that a person is drawn to a populist party when the anti-establishment message of this party resonates with one's personality. When assessing an individual's personality, researchers often make use of the Big Five personality traits, which is a taxonomy of temperament and behavior that identifies five traits: Openness, Conscientiousness, Extroversion, Agreeableness and Neuroticism (Digman, 1990; Goldberg, 1992). We push this research one step further by hypothesizing that voting for populists is rooted in low Agreeableness. Because low agreeable individuals are inclined to be highly skeptical of the behavior of others, they are highly sensitive to populist parties' anti-establishment message and therefore inclined to support these parties.

To test our argument, we report survey evidence from the United States, the Netherlands and Germany. These countries have a diverse set of successful populists: the anti-government Tea Party (US), the welfare chauvinist and anti-immigrant Freedom Party (Netherlands) and the left-wing *Die Linke* (Germany). We report systematic negative correlations between Agreeableness and support for a populist party. We control for a host of additional interpretations – ideology, socio-economic background, authoritarianism and the other Big Five traits – but find systematic evidence for an *independent* effect of Agreeableness on populist voting. This is an important finding, because we demonstrate (1) that populist voters do not have an authoritarian personality such as supporters of fascist outfits and (2) that populist voting is not irrational protest voting as some have claimed (Bergh, 2004; Billiet & de Witte, 1995; Mayer & Perrineau, 1992). It is not irrational to express discontent if that is one's purpose (van der Eijk et al. 1996), especially not if protest satisfies needs deriving from one's personality. Hence, the populist vote (for a right- or left-wing populist party or movement) can only fully be understood once the personality of the voter is taken into consideration.

What is populism?

Scholars increasingly agree on a substantive, ‘ideational’ definition of populism (Hawkins, 2009; Mudde & Rovira Kaltwasser, 2012), because prototypical populists do not have a particular style of practising politics or a specific form of organization in common. Instead, it is the *message* they express that distinguishes them from other parties (Rooduijn, 2014). Specifically, populism is “an ideology that considers society to be ultimately separated into two homogeneous and antagonistic groups, ‘the pure people’ versus ‘the corrupt elite’, and which argues that politics should be an expression of the *volonté générale* (general will) of the people” (Mudde, 2004, p. 543). What exactly is meant by ‘the people’ or ‘the elite’ depends on the particular political context within which a populist party rallies (Canovan 1981). The elite – arrogant, greedy, lazy, corrupt, unresponsive to ordinary people, and absorbed by self-interest (Barr 2009; Mudde 2004) – might be a political elite (politicians and parties), an economic elite (bankers and ‘the rich’), a cultural elite (academics and writers), a media elite (journalists) or a legal elite (judges) (Jagers & Walgrave 2007).

According to this definition, populism is neither left nor right, neither progressive nor conservative. Populism can be combined with many different ‘host ideologies’. The Tea Party – with its romantic vision of the original, lean state – combines libertarianism with an anti-establishment message (Parker & Barreto 2013; Skocpol & Williamson 2013). The Dutch Freedom Party (PVV) criticizes the elite for its multiculturalism and for selling out national interests to the benefit of Brussels or immigrants. Contrary to the Tea Party this party strives to be the ‘real’ social democratic party and defends the welfare state against infringement from Brussels or excessive use by ‘lazy’ immigrants (Schumacher & van Kersbergen, 2014). Some populist parties change over time. In the 1980s and 1990s the French Front National

combined nationalist appeals with a neo-liberal outlook (Kitschelt 1995), but has now taken over the welfare chauvinism of its successful Dutch counterpart (Schumacher & van Kersbergen 2014). In sum, whether, for example, populists exclude outsiders, or whether they endorse a strong welfare state is dependent on the ‘host ideology’ to which the populist party attaches itself.

Previous research has shown that the message of populist parties indeed differs from the messages of mainstream parties. Based on a systematic content analysis of election manifestos of parties in five Western European countries, Rooduijn, de Lange and van der Brug (2014) demonstrate that populist parties are more inclined to make the claim that the Good people are exploited by an Evil elite than mainstream parties. In sum, all prototypical populist parties have in common that they express a specific anti-establishment message but differ in the host ideology they have adopted (Mudde 2004). Personality should thus match with this anti-establishment message *across* countries.

Personality and Voting for Populist Parties

To analyze the link between personality and populism we apply the metaphor of elective affinity. According to this metaphor there is a symbiosis – a “functional match” – between the symbolic nature and substance of a belief system and the psychological dispositions of their supporters (Caprara & Zimbardo, 2004; Jost et al., 2003, 2009). Thus, individuals support a party if their personality matches with the party’s ideological message. Voters even project their own personality on the personality of their preferred political leader (Caprara et al., 2007; Roets & Van Hiel, 2009), which further strengthens the functional match between voter personality and vote choice. With the anti-establishment message as a central characteristic of populist parties we expect that for populist party supporters the content,

structure or symbols of this anti-establishment message should resonate with some personality trait.

To develop this prediction we turn to a commonly used categorization of psychological dispositions: the Big Five model of personality. Originating in the lexical tradition of personality psychology, the Big Five identifies five continuous psychological dispositions that describe differences in the temperament and behavior of individuals: Openness, Conscientiousness, Extroversion, Agreeableness and Neuroticism (Digman 1990; Goldberg 1992). We use the Big Five model of personality because they encapsulate a wide variety of individual differences, have a genetic component, develop in early childhood, and are relatively stable over time (Mondak, 2010, Chapter 2). These dispositions are correlated with – among other things – health behavior (Ozer & Benet-Martínez, 2006), academic achievement (Paunonen & Ashton, 2001), political attitudes (Gerber et al., 2010; Jost et al., 2003) and vote choice (Bakker, Klemmensen, et al., 2015; Caprara et al., 1999; Schoen & Schumann, 2007).

Expanding the elective affinity metaphor, we expect that the anti-establishment message resonates well with individuals scoring low on *Agreeableness*. Agreeableness is a trait characterized by altruism, trust towards others, soft-heartedness, modesty, tolerance, and cooperativeness (Costa et al. 1991; Goldberg 1992). Individuals that score low on Agreeableness are thus egoistic, distrusting towards others, intolerant, uncooperative, and they express antagonism towards others (McCrae, 1996, p. 329). In the political domain low agreeable individuals are: more distrusting of politicians (Mondak & Halperin, 2008) and politics (Dinesen et al., 2014); less efficacious (Mondak & Halperin, 2008; Schoen & Steinbrecher, 2013); and more likely to believe in conspiracy theories (Swami & Furnham, 2012; Swami et al., 2010, 2011). The populist anti-establishment message – accusing the political elite of incompetence, insubordination and profiteering at the expense of the

common people – matches with a distrusting, though-minded, cynical and intolerant personality.

Various studies indeed verify that persuasive appeals are especially effective when the message resonates with psychological dispositions such as personality (Hirsh et al. 2012). For instance, authoritarians that receive a threatening message express less tolerance towards out-group members (Feldman & Stenner 1997), are more likely to vote (Lavine et al., 1999), and are more likely to process information in a biased manner (Lavine et al. 2005). These studies suggest that matches between persuasive messages and personality indeed lead to strong behavioral responses from the recipient.

To conclude, we hypothesize that individuals low on Agreeableness are likely to be susceptible to populist anti-establishment messages, and therefore they should be more likely to support populist parties.

Additional Explanations of Voting for Populist Parties

We now consider four additional explanations of the relationship between personality and voting for populist parties: (1) right-wing ideology; (2) authoritarianism and social dominance orientation; (3) the effect of the four other Big Five traits; and (4) socio-economic background variables.

The first explanation is that the low agreeable are right-wing and therefore vote for a populist party. Individuals with a social-conservative ideology have been described as low agreeable (Gerber et al., 2010; Van Hiel & Mervielde, 2004). Also, the low agreeable are more likely to vote for right-wing parties (Barbaranelli et al. 2007; Caprara et al. 1999; Schoen & Schumann 2007). Moreover, other ideological constructs such as social dominance orientation or right-wing authoritarianism have been associated with support for the radical right (Duckitt & Sibley, 2010, Duckitt, 2001). However, not every populist party hosts a

right-wing, conservative agenda. Populist parties combine an anti-establishment message with a ‘host’ ideology that could be right-wing or radical left-wing, conservative or neo-liberal. We therefore expect right-wing ideology to predict populist voting in contexts with radical-right populist parties but not in contexts with populists with another host ideology. Following this reasoning we expect low Agreeableness to explain populist party voting across countries, even when controlling for ideology.

Second, the roots of the study of personality lie in explaining why people supported fascist parties and condoned widespread violence against their own population (Adorno et al. 1950; Frenkel-Brunswik 1948). This research is about authoritarian personalities (Altemeyer, 1997), which is conceptualized as a preference for conventionalism, moral absolutism, obedience to authority and cynicism (Napier & Jost 2008) or as a dimension with social conformity on the one hand and autonomy on the other hand (Feldman 2003). As argued in our section on populism, a populist party might have authoritarian standpoints, but this is not the common denominator of populist parties. Indeed, some studies find a positive correlation between (right-wing) authoritarianism and support for populist parties such as the Tea Party in the US (Arceneaux & Nicholson 2012) as well populist parties in Denmark and Switzerland (Dunn 2013). However, the correlation between authoritarianism is not replicated for populist parties in Austria, the Netherlands and Belgium (Dunn 2013; Zandonella & Zeglovits 2012). Conceptually, there exists a tension between the anti-establishment core of populism and authoritarianism. It is difficult to see how an individual is obedient to authority by supporting a party that opposes the authorities. In sum, authoritarianism matches with the ‘host’ ideology of some populist parties, but there is a tension with the anti-establishment posture – the common denominator of populist parties.

Third, we add the full set of other personality traits from the Big Five model – Openness, Conscientiousness, Neuroticism and Extroversion – to control for other potential

associations with populist parties. Openness, Conscientiousness, Neuroticism, and to a lesser degree Extroversion have been associated with political ideology (Gerber et al., 2010; Jost et al., 2003; Mondak & Halperin, 2008). We therefore expect to find an association between these four personality traits and the support for populist parties when we do not control for ideology. If we analyze voting behavior with personality traits *and* ideology, we expect that the effect of personality traits disappear because it is mediated by ideology. Here we briefly discuss the association between the four Big Five traits and ideology.

Openness is a trait characterized by a preference for new activities, ideas and the willingness to reconsider held beliefs (Digman 1990; Goldberg 1992). Low levels of Openness relate to conservatism and voting for right-wing parties (Barbaranelli et al. 2007; Gerber et al. 2010; Schoen & Schumann 2007). Specifically, we expect to observe a negative association between Openness and the support for populist parties with a right-wing ‘host’ ideology (i.e., the Tea Party and Freedom Party), whereas we expect a positive association between Openness and populist parties with a left-wing ‘host’ ideology (i.e., *Die Linke*).

Conscientiousness is characterized by a strong preference for order, structure, self-discipline and achievement striving (Digman 1990; Goldberg 1992). Conscientious individuals have conservative/right-wing attitudes in both the economic and the social domains of politics (Gerber et al. 2010; Riemann et al. 1993). Therefore we expect a positive association between Conscientiousness and support for the Tea Party as well as the Freedom Party but a negative association with *Die Linke* if we do not control for ideology.

Neuroticism relates to the experience of negative affect such as anger, anxiety and depression as well as self-consciousness and the experience of stress (Digman 1990; Goldberg 1992). In the US Neuroticism correlates positively to voting for the Democrats (Barbaranelli et al. 2007) and economic liberalism (Gerber et al. 2010). Likewise, in Germany, Neuroticism relates to support for political “parties that offer shelter against material and cultural

challenges” (Schoen & Schumann 2007: 492). Therefore, we expect a negative association between Neuroticism and the support for populist parties with a right-wing ‘host’ ideology but a positive association between Neuroticism and populist parties with a left-wing ‘host’ ideology. *Extroversion* relates to excitement seeking, outgoing and social behavior and is inconsistently associated with voting and ideology (Gerber et al., 2010; Mondak & Halperin, 2008).

Fourth, voting for populists has often been linked to socio-demographic characteristics of voters, such as age, education and gender (Lipset 1960). Typical populist voters are both older and younger, lowly educated, and men (Arzheimer & Carter, 2006; Arzheimer, 2009; Lubbers et al., 2002). Therefore, we control for these variables.

Research Design

We test our hypothesis in three countries: the United States (Tea Party), the Netherlands (Freedom Party) and Germany (*Die Linke*). These three parties have different host-ideologies. The Tea Party is a populist faction (Skocpol & Williamson 2013) in the Republican party that can be labeled as conservative (Gervais & Morris, 2012; Parker & Barreto, 2013). *Die Linke* can be labeled as socialist, and the Freedom Party as radical right (Mudde & Rovira Kaltwasser, 2012). We selected ideologically heterogeneous populist parties to underline the fact that the anti-establishment message is the common denominator of populist parties – not their ‘host’ ideology. Indeed, the Tea Party (Parker & Barreto 2013; Skocpol & Williamson 2013), *Die Linke* and the Freedom Party (Mudde & Rovira Kaltwasser, 2012; Rooduijn, 2014) all share the anti-establishment message.

We draw from different data sets in the US (American National Election Studies [ANES] 2012, and the Cooperative Congressional Election Study [CCES] 2010), the Netherlands (Longitudinal Internet Studies for Social Science Research 2010) and Germany

(German Post Election Study 2009). An obvious drawback of using different data sets is that theoretical concepts cannot always be measured by the same variables. However, we take care to achieve measurement equivalence across our dependent and independent variables.² Table 1 provides an overview of the samples and measures used in the three studies.

[Insert Table 1 here]

Study 1: Agreeableness and Populism in the US: Tea Party Support

First, we address the association between support for the Tea Party and Agreeableness. The Tea Party is a populist faction in the Republican party (Gervais & Morris, 2012; Parker & Barreto, 2013).

Materials and Methods

We employ two U.S. samples. The first sample is a pre-election survey part of the 2012 American National Election Survey (ANES, 2014). The second sample was gathered as part of the Cooperative Congressional Election Studies 2010 (CCES; Ansolabehere, 2010). A random sub-sample of the CCES was recruited to answer a series of psychological measures in the first and the second wave of the survey. We relied upon the second wave of the survey because we could combine the measures of personality with the support for the Tea Party variable.

In the ANES 2012 we use an item measuring support for the Tea Party that ranges from “strong support“ (1) through “strong opposition“ (7). In the CCES 2010 we relied upon

² The correlations between the independent variables in our analyses are in the same directions and, most often, of the same magnitude across the samples (see SI Table A.3 [ANES], Table B.3 [CCES], Table D.3 [Netherlands] and Table E.3 [Germany]).

the item which asks people to express “their favorability of the Tea Party”. This item ranged from “very positive” (1) through “very negative” (5). We reversed both items to range from very negative attitudes towards the Tea Party (0) through very positive attitudes towards the Tea Party (1).

In both samples, personality traits were measured using the Ten Item Personality Inventory (TIPI) which measures each trait with two items (Gosling et al., 2003). We controlled for gender, age, age-squared, race, education, authoritarianism, and social and economic attitudes (Arceneaux & Nicholson, 2012). The item wording of the independent variables, the descriptive statistics and the correlations between the independent variables can be found in the Supporting Information (SI) A (ANES; Table A.1-3) and SI B (CCES; Table B.1-3).

Results

Due to the ordinal nature of this dependent variable we ran a series of ordered logistic regression models with clustered standard errors at the state level. In Table 2 (left-hand column) we present the model where we control for the other four personality traits, gender, age, education, and race and a second model where we also include authoritarianism and our ideological variables. Starting with the ANES 2012, we observe that Agreeableness is consistently associated with support for the Tea Party. Figure 1 (upper panel) presents the predicted support for the Tea Party while holding all other variables at their central tendencies. We observe that, in line with the expectations, low scorers on Agreeableness are more likely to support the Tea Party (0.13 [95% CI = 0.11, 0.15]) compared to high scorers on Agreeableness (0.10 [95% CI = 0.09, 0.11]). The effect of Agreeableness is at par with the effect of Authoritarianism on support for the Tea Party as low scorers on authoritarianism are less likely to support the Tea Party (0.08 [95% CI = 0.07, 0.10]) compared with high scorers

on authoritarianism (0.13 [95% CI = 0.12, 0.14]). The effects of Agreeableness are, however, modest compared to the effects of the attitudinal dimensions on the probability of voting for the Tea Party. Specifically, respondents with left-wing economic attitudes are much less likely to have favorable attitudes towards the Tea Party (0.02 [95% CI = 0.02, 0.03]) compared to respondents with right-wing economic attitudes (0.23 [95% CI = 0.21, 0.25]).

Turning to the CCES 2010, we analyze favorability to the Tea Party. Like in our analyses of the ANES (2012), we present in Table 2 (right-hand column) the results of two ordered logistic regression models. The lower panel of Figure 1 projects the predicted sympathy for the Tea Party while keeping all other variables at their central tendency. Respondents with low levels of Agreeableness are more likely to have very positive evaluations of the Tea Party (0.38 [95% CI = 0.35, 0.41]) compared with high scorers on Agreeableness (0.32 [95% CI = 0.28, 0.32]). Again the effect of Agreeableness is grossly at par with the effect of Authoritarianism but considerably smaller compared with the effects of the ideological variables.³

[Insert Table 2 and Figure 1 here]

Moving to our additional explanations, we find in both samples that support for the Tea Party is (1) associated with low levels of Openness but high levels of Conscientiousness in the models without attitudinal covariates (i.e., models 1). However, in both samples the effects of these personality traits disappear when authoritarianism as well as the social and economic attitudes were included. The effects of the other two traits are not consistent across the samples. In the ANES 2012, Extroversion is positively associated with support for the Tea Party, whereas Neuroticism is negatively associated with support for the Tea Party. These

³ In SI C we demonstrate the discriminant validity of our findings in the US.

associations disappear when the attitudinal controls are included. Importantly, we do not replicate these findings in the CCES 2010 which questions the robustness of these particular associations. (2) Conservative economic and social attitudes strongly predict support for the Tea Party. (3) Authoritarianism is a strong predictor for Tea Party support in the ANES 2012 (Arceneaux & Nicholson 2012), yet, this effect is not replicated in the CCES 2010. (4) In both samples, the socio-economic background variables show a pattern with earlier research, whereby African Americans and higher educated are less likely to support the Tea Party (Arceneaux & Nicholson, 2012).

Conclusion

To summarize, Agreeableness is a substantive predictor of the support for the Tea Party even when controlling for a host of other predictors of support for the Tea Party. But is this finding unique to the Tea Party? To address that issue we turn to two European polities.

Study 2: Agreeableness and Populism in the Netherlands: Voting for the Freedom Party

In study 2 we address the association between Agreeableness and the Freedom Party in the Netherlands. The Freedom Party is a radical right party (Mudde & Rovira Kaltwasser, 2012).

Materials and methods

The Dutch sample in study 2 is drawn from the longstanding Dutch LISS panel. We rely upon the *politics and values wave* of this panel (2009-2010). Respondents were asked “Which party would you vote for if elections were held today?” In this sample we analyze the vote for the

Freedom Party.⁴ We created a dummy variable with: vote for the Freedom Party (1) and all other parties (0).⁵

Personality traits were measured using 50-item International Personality Item Pool – Five Factor Model (IPIP-FFM) which measures each trait using 10 items (Ehrhart et al. 2008; Goldberg et al. 2006). We control for gender, age, age-squared, education, and social and economic attitudes. The item wording of all independent variables, the descriptive statistics and the correlations between the independent variables are in the SI D (Table D.1-3).

Results

First, we start with the comparisons of the mean levels of Agreeableness based upon the intention to support the Freedom Party or not. A one sample t-test indicates that the vote intention for the Freedom Party is associated with a significant lower ($t(653) = -3.87, p < 0.001$) level of Agreeableness ($M = 0.64, SD = 0.16$) compared to the mean of the sample ($M = 0.66$). In Table 3, we observe that Agreeableness is a predictor of the vote intention for the Freedom Party. Respondents low on Agreeableness (5th percentile) were more likely to vote for the Freedom Party (0.16 [95% CI = 0.14, 0.18]) compared to respondents high on Agreeableness (0.11 [95% CI = 0.09, 0.13]). This effect is substantive, yet, not at par with the effect of social attitudes on vote intention for the Freedom Party. Respondents with left-wing social attitudes are much less likely to vote for the Freedom Party (0.01 [95% CI = 0.01,

⁴ We do not include the Socialist Party (NL) in our analysis as no consensus exists as to whether this party should be classified as populist (Lucardie & Voerman, 2012; Rooduijn, 2014).

⁵ With 11 parties in the Dutch parliament a multinomial regression analysis is appropriate. To enforce comparability between our country analyses we use logistic regression here.

However, multinomial regression analyses for the Netherlands yield the same result (Results available upon request).

0.01]) compared with respondents with right wing social attitudes (0.29 [95% CI = 0.26, 0.31]).⁶

[Insert Table 3 and Figure 2 here]

Now we look at the additional explanations for which we introduced control variables. First, high levels of Conscientiousness predict voting for the Freedom Party in our model without the two ideological variables (model 1, Table 3). These two ideological variables also predict conservative attitudes (Gerber et al. 2010). Hence, and secondly, this explains why we do not find statistically significant effects for Conscientiousness when we control for our two ideological variables in model 2 (Table 3). Second, Extroversion is associated with the vote intention for the Freedom Party. Specifically, extroverts are more likely to vote for the Freedom Party (0.16 [95% CI = 0.14, 0.19]) compared with introverted respondents (0.11 [95% CI = 0.09, 0.13]). The Freedom Party is a new party and this could explain why extroverts are more likely to be drawn to this new party. Third, Openness and Neuroticism are unrelated to vote intention for the Freedom Party. Fourth, we find that the lower educated, men and the young are more likely to vote for the Freedom Party.

Conclusion

Also in our Dutch sample we find robust evidence for the relationship between Agreeableness and voting for a populist party. Yet, like the Tea Party, the Freedom Party is a right-wing party. We turn to a populist party with a left-wing ‘host’ ideology in order to see if

⁶ We tested whether support for the Freedom Party is equivalent to supporting conservative parties. We find no evidence of this (SI F).

Agreeableness is associated with support for populist parties irrespective of the ‘host’ ideology.

Study 3: Agreeableness and Populism in Germany: Voting for *Die Linke*

In study 3 we address the association between Agreeableness and a populist party with a socialist ‘host’ ideology, namely *Die Linke* (Mudde & Rovira Kaltwasser, 2012).

Materials and Methods

The German sample is based on the German Post Election Study of the year 2009 (Rattinger et al. 2011). Participants were asked which party they voted for in their local constituency during the national elections. We analyze voting for *Die Linke*. We created a dummy variable with: vote for *Die Linke* (1) and all other parties (0).

Personality was measured with a 5-item personality inventory (see, Schoen & Steinbrecher, 2013, p. 539). Short measures of personality generally are reliable and valid (Gosling et al. 2003; Woods & Hampson 2005). The item wording of all independent variables, the descriptive statistics and the correlations between the independent variables are in the SI E (Table E.1-3). We controlled for gender, age, age-squared, education (model 1) and also control for the social and economic attitude dimensions (model 2).

Results

First, we compare means of Agreeableness of *Die Linke* voters and other voters. We observe that voters for *Die Linke* score lower ($t(213) = -1.63, p = 0.05$) on Agreeableness ($M = 0.54, SD = 0.26$) compared to the mean of the sample ($M = 0.57$). Turning to the regression analyses, we confirm that lower levels of Agreeableness are related to a higher probability of voting for *Die Linke* and these results are robust across model specifications (see Table 4).

Looking more in detail at these findings, we calculated the predicted probabilities of voting for the populist party among voters low (5th percentile) and high (95th percentile) on Agreeableness. We observe that the low scorers on Agreeableness are more likely to vote for populist parties (0.16 [95% CI= 0.12, 0.19]) compared to the high scorers on Agreeableness (0.10 [95% CI = 0.07, 0.13]).⁷ This effect is substantive but not as large as the effect of economic attitudes on voting for the populist party. Specifically, respondents with left-wing economic attitudes (5th percentile) are more likely to vote for *Die Linke* (0.28 [95% CI = 0.21, 0.34]) compared with respondents with right-wing economic attitudes (95th percentile) who are not very likely to vote for *Die Linke* (0.05 [95% CI = 0.03, 0.07]).⁸

[Insert Table 4 and Figure 3 here]

Moving to our additional explanations, we find that (1) high Openness and high Extroversion relates to voting for *Die Linke*. Openness is often associated with left-wing ideology (Gerber et al., 2010; Jost et al., 2003) and extroverts might find it exciting to vote for a new party (Kam & Simas 2012). *Die Linke* was new in the 2009 elections, although the party is a merger

⁷ Bakker, Hopmann and Persson (2015) reported no association between Agreeableness and identification with *Die Linke*. The nature of these different findings are hard to explain. Yet, because of conceptual and operational differences between party identification and vote intention (Thomassen & Rosema, 2009) we should not expect that they have necessarily the same psychological antecedents. Future research should address this issue.

⁸ As in footnote 6, we also compared vote intention for *Die Linke* support for progressive and conservative parties in Germany. Vote intention for *Die Linke* is associated with lower levels of Agreeableness compared to the vote intention for the conservative parties but does not differ from voting for progressive parties. We discuss these implications in SI F.

of two parties that previously did participate in elections. Note that the effects for Extroversion and Openness are grossly at par with the effects of Agreeableness. Furthermore we find that Conscientiousness and Neuroticism do not relate to voting for *Die Linke*. (2) Left-wing economic attitudes are strongly associated with the vote for *Die Linke*, but social attitudes are not. (3) We find no relationship between gender, age, age-squared and education and voting for *Die Linke*.

Conclusion

In sum, we find a negative relationship between Agreeableness and voting for *Die Linke*. This confirms that Agreeableness is associated with support for populist parties irrespective of the 'host' ideology.

Discussion

The political psychology literature has for long analyzed the psychological roots of political radicalism or extremism (Adorno et al., 1950; Altemeyer, 1997; Duckitt & Sibley, 2010; Feldman, 2003; Frenkel-Brunswik, 1948; Lipset, 1960; Van Hiel, 2012). This paper fits into this tradition but focuses on the more contemporary phenomenon of *populist* parties such as the American Tea Party, the Austrian and Dutch Freedom Parties, the French *Front National*, and *Die Linke* in Germany. Populist parties combine an anti-establishment message with some 'host' ideology of which the content depends on the specific political context. Building upon the elective affinity metaphor (Caprara & Zimbardo, 2004; Jost et al., 2009) we expect individuals to support a party if there is a functional match between their personality and the party's message. Arguing that Agreeableness is the best candidate for this functional match, we hypothesized that individuals low on Agreeableness are more likely to support populist parties.

We find evidence for our hypothesis across two continents, three countries (US, the Netherlands and Germany), four independent samples (in total 12,420 respondents) and three ideologically heterogeneous populist parties (see table 5). Also, our findings are robust against a number of other plausible explanations.⁹ The effect of Agreeableness is substantive across samples but smaller than the effects of ideology on support for populist parties. This is not surprising as personality arguably is a more distant antecedent of support for political parties compared to ideology.

[Insert Table 5 – around here]

By demonstrating the psychological antecedents of populist voting our paper also provides a richer, psychological micro-foundation for the support of populist parties. Oftentimes voting for populist parties is seen as an irrational act (Billiet & de Witte 1995; Mayer & Perrineau 1992): a blunt vote against the political establishment (Bergh 2004) with no real purpose. But it is not irrational to express discontent if that is one's purpose (van der Eijk et al. 1996). Individuals low on Agreeableness perceive others as not trustworthy and unreliable. A party that claims the political establishment cannot be trusted validates the worldview of low

⁹ We did not discuss two alternative explanations: (1) Agreeableness might interact with Openness and Conscientiousness in predicting support for populist parties. We find no evidence for this hypothesis (see SI G). (2) The effects of Agreeableness on support for populist parties could be conditional on ideology. We do not find evidence for this alternative explanation in the US. Yet, in the Dutch and German sample low agreeable voters are likely to vote for the populist party when they hold right-wing social attitudes. We discuss the implications of these explorations in SI H.

agreeable individuals and by voting for this party these individuals experience positive feedback.

New findings always beg new questions. First, *which psychological needs and motivations link agreeableness to populist voting?* Jost and co-authors (2009) identify epistemic, existential and relational motives – which satisfy specific needs – that explain the link between the Big Five and general left-right ideology. We propose that for low agreeable individuals support for a populist party satisfies the need to validate one’s worldview and thus relates to epistemic and existential motives. However, future research should identify the exact nature of the causal relations between personality traits, individual needs, motivations and support for populist parties and remain open to theories that differ in conceptualization and causal order (Corr et al., 2013; Denissen & Penke, 2008; Fleeson & Jayawickreme, 2014; Roberts & Robins, 2000)

Second, *in which political and economic context is populism likely to flourish?* Our study cannot predict the ebb and flow in support for populist parties over time. In order for low agreeable individuals to be exposed to anti-establishment messages: (1) there has to be a populist party in the first place; (2) the media should pay (much) attention to the messages of these parties (Vliegenthart et al. 2012); (3) mainstream parties should engage in debate with these parties (Arzheimer & Carter 2006); and (4) cultural and socio-economic conditions should make the issues of the populist party salient (Arzheimer, 2009). By designing experiments in which the political or economic context is manipulated we could identify what exactly activates low agreeable individuals and separate contextual factors that increase support for the populist ‘host’ ideology and contextual factors that increase anti-establishment support. Duckitt and Sibley’s (2010; 2001) Dual Process Model can be an important guide here, as it claims that support for related ideological constructs (social dominance orientation

and right-wing authoritarianism) is a function of the combination of a specific context and personality.

Third, *how solid is the link between agreeableness and populist voting over time?* Do populist voters become less agreeable? And do they continue supporting the party if it becomes integrated into the political establishment? Voters do adjust their attitudes in line with their vote choice (Beasley & Joslyn, 2001; Mullainathan & Washington, 2009) and voting for populist parties does fuel political dissatisfaction (Rooduijn, 2013; Van der Brug, 2003) and a closer identification with the party's operational 'host' ideology (Bakker et al., 2013). Following this last finding, populist voters may over time become policy voters instead, and remain party supporter even when the establishment absorbs the populist party. It is, however, unlikely that populist voters become less agreeable, because personality traits are stable over the long run (Cobb-Clark & Schurer, 2012) and unaffected by election outcomes (Gerber et al., 2013).

Fourth, recent studies suggest that Agreeableness consists of two sub-dimensions: *politeness* taps into compliance, cynicism, tough-mindedness and traditionalism, whereas *compassion* taps into trust, altruism and tender-mindedness (DeYoung et al., 2007). One could imagine that low scorers on the sub-dimension politeness support populist parties because of the anti-establishment core of populist parties. Future research could consider the inclusions of large Big Five inventories that tap into these sub-dimensions (see for instance, Hirsh et al., 2010; Osborne et al., 2013) which would make it possible to generate more specific predictions at the sub-dimension level about the relationship between Agreeableness and support for populist parties.

According to Caprara and Zimbardo (2004, p. 584) "a crucial skill for politicians is learning to speak the language of personality, namely, to navigate properly in the domain of personality attributes by identifying and conveying those individual characteristics that are

most appealing at a certain time to a particular constituency”. Populists like Le Pen, Wilders, Palin and Farage have mastered the skill of activating voters with low agreeable personalities. That is what unites them *across* political contexts, what separates them from existing parties *within* political contexts, and what underlies their perhaps unexpected success.

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Table 1. Schematic overview of the studies

	Dependent variable	Big Five	N	Economic Attitudes	Social Attitudes	Authoritarianism
Study 1: US						
<i>ANES 2012</i>	Support for the Tea Party	TIPI (#10)	5,016	Spending preferences (#1)	Moral-traditionalism (#4)	Yes (#3)
<i>CCES 2010</i>	Support for the Tea Party	TIPI (#10)	1,060	Spending preferences (#1)	Abortion attitudes (#4)	Yes (#3)
Study 2: the Netherlands	Vote intention for the Freedom Party	IPIP-FFM (#50)	4,849	Redistribution of income (#1)	Immigration attitudes (#1)	No
Study 3: Germany	Vote for Die Linke	Five-item personality inventory (#5)	1,497	Spending preferences (#1)	Immigration attitudes (#1)	No

(#) signals the number of items used to measure the construct.

Table 2. Agreeableness and Tea Party favorability in 2012 (ANES) and 2010 (CCES)

	ANES 2012		CCES 2010	
	1	2	1	2
Agreeableness	0.73# (0.12)	0.59* (0.12)	0.43* (0.16)	0.46* (0.18)
Openness	0.31* (0.05)	0.78 (0.12)	0.18* (0.06)	0.73 (0.31)
Conscientiousness	2.25* (0.34)	1.00 (0.17)	5.64* (2.49)	1.33 (0.55)
Extraversion	1.35* (0.19)	1.15 (0.18)	1.42 (0.42)	1.42 (0.49)
Neuroticism	0.69* (0.09)	0.78 (0.12)	0.57 (0.18)	0.44* (0.18)
Age	0.92 (0.05)	0.67 (0.29)	1.78 (2.16)	0.20 (0.32)
Age ²	0.71 (0.25)	0.72 (0.29)	1.02 (1.24)	12.76 (21.97)
Female	1.06 (0.35)	1.07 (0.07)	0.64* (0.09)	0.92 (0.15)
Race				
Black	0.28* (0.03)	0.39* (0.06)	0.24* (0.04)	0.28* (0.08)
Hispanic	0.74* (0.06)	1.05 (0.09)	0.84 (0.14)	0.87 (0.23)
Other	0.96 (0.13)	1.17 (0.16)	2.12* (0.50)	1.26 (0.29)
Education	0.80* (0.02)	0.81* (0.02)	0.83* (0.04)	0.94 (0.05)
Authoritarianism	-	15.95* (2.21)	-	1.34 (0.27)
Economic Attitudes	-	23.96* (3.28)	-	301.38* (102.32)
Social Attitudes	-	1.71* (0.19)	-	8.69* (1.94)
N	5,016	4,210	1,060	987
Pseudo R ²	0.03	0.13	0.06	0.28
Wald Chi ²	441	1,810	194	1,385
Log pseudolikelihood	-7,993	-6,042	-1,448	-1,030

In all models we run ordered logistic regression models with standard errors clustered at the state level. Proportional odds ratios with standard errors in parentheses are reported. *p < 0.05; # p < 0.1

Table 3. Agreeableness and vote for the Freedom Party (*Dutch Sample*)

	1	2
Agreeableness	0.29* (0.11)	0.39* (0.15)
Openness	0.56 (0.18)	0.75 (0.25)
Conscientiousness	3.08* (1.02)	1.43 (0.50)
Extraversion	3.94* (1.29)	2.63* (0.87)
Neuroticism	1.55 (0.46)	1.45 (0.39)
Female	0.55* (0.05)	0.63* (0.06)
Age	1.61 (1.25)	1.52 (1.27)
Age ²	0.23 (0.22)	0.27 (0.27)
Education	0.73* (0.02)	0.74* (0.03)
Economic Attitudes	-	1.08 (0.22)
Social Attitudes	-	136.43* (45.58)
Constant	1.02 (0.35)	0.02* (0.01)
N	4,849	4,655
Pseudo R ²	0.05	0.15
Wald Chi ²	215	389
Log likelihood	-1819	-1565

Logistic regression models, odds ratios reported with standard errors in the parentheses. Observations are clustered at the household level. *p < 0.05

Table 4. Agreeableness and vote for Die Linke (*German Sample*)

	1	2
Agreeableness	0.53* (0.17)	0.49* (0.17)
Openness	1.76 (0.60)	2.69* (1.11)
Conscientiousness	0.47 (0.20)	0.57 (0.28)
Extraversion	2.14* (0.65)	2.09* (0.70)
Neuroticism	1.21 (0.42)	1.38 (0.53)
Female	0.82 (0.13)	0.80 (0.14)
Age	4.34 (5.93)	6.76 (10.39)
Age ²	0.24 (0.35)	0.14 (0.23)
Education	0.86 (0.07)	0.87 (0.08)
Economic Attitudes	-	0.14* (0.05)
Social Attitudes	-	1.16 (0.39)
Constant	0.29* (0.18)	0.38 (0.29)
N	1,495	1,348
Pseudo R ²	0.02	0.05
LR Chi ²	22	53
Log likelihood	596	488

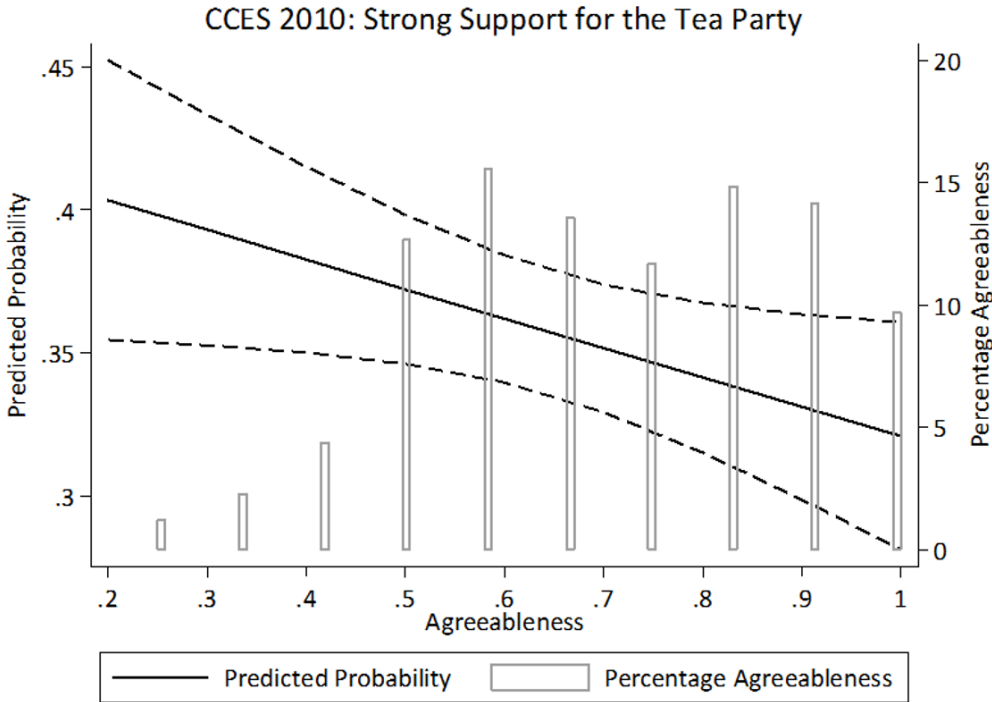
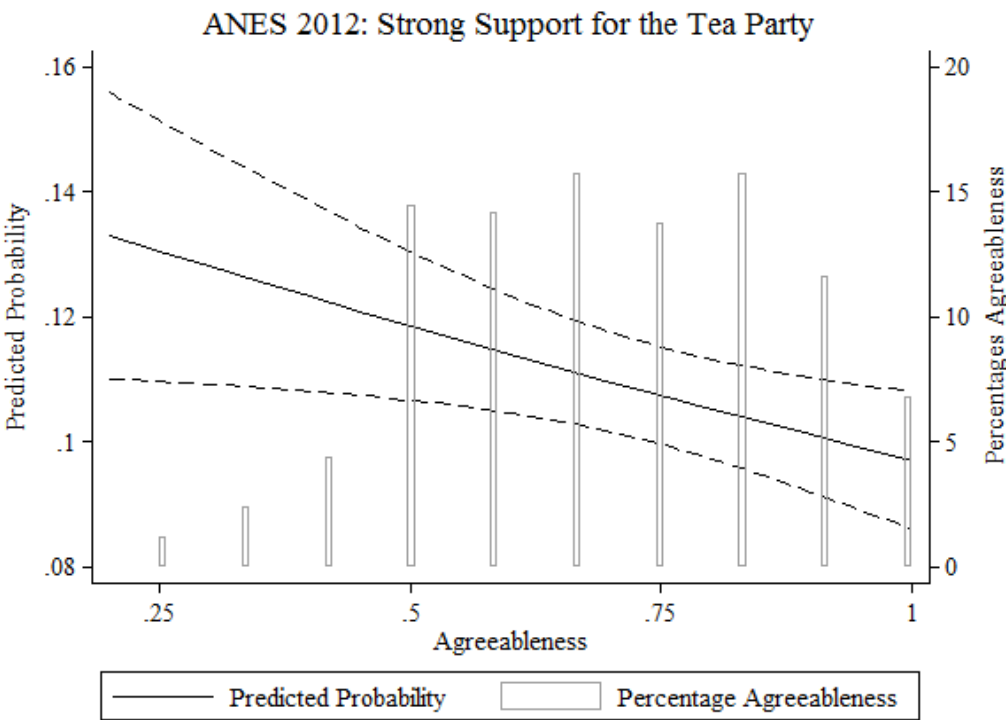
Logistic regression models, odds ratios reported with standard errors in the parentheses.* $p < 0.05$

Table 5. Overview of the association between personality and voting for populist parties

	US - Tea Party		NL- Freedom Party	Germany - Die Linke
	ANES	CCES		
Openness				+
Conscientiousness				
Extraversion			+	+
Agreeableness	-	-	-	-
Neuroticism		-		

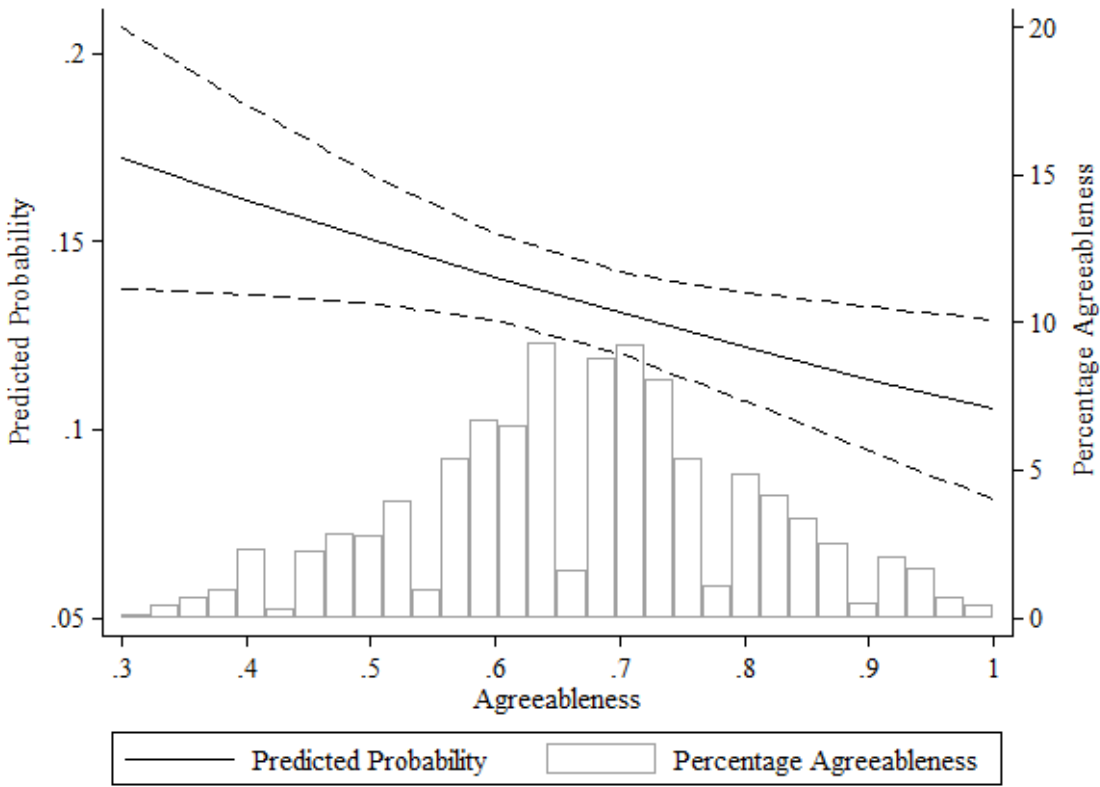
The association between the Big Five trait and voting for the populist party in the full model is positive (+), negative (-) or absent (blank space).

Figure 1. Predicted Probability of supporting the Tea Party for different levels of Agreeableness



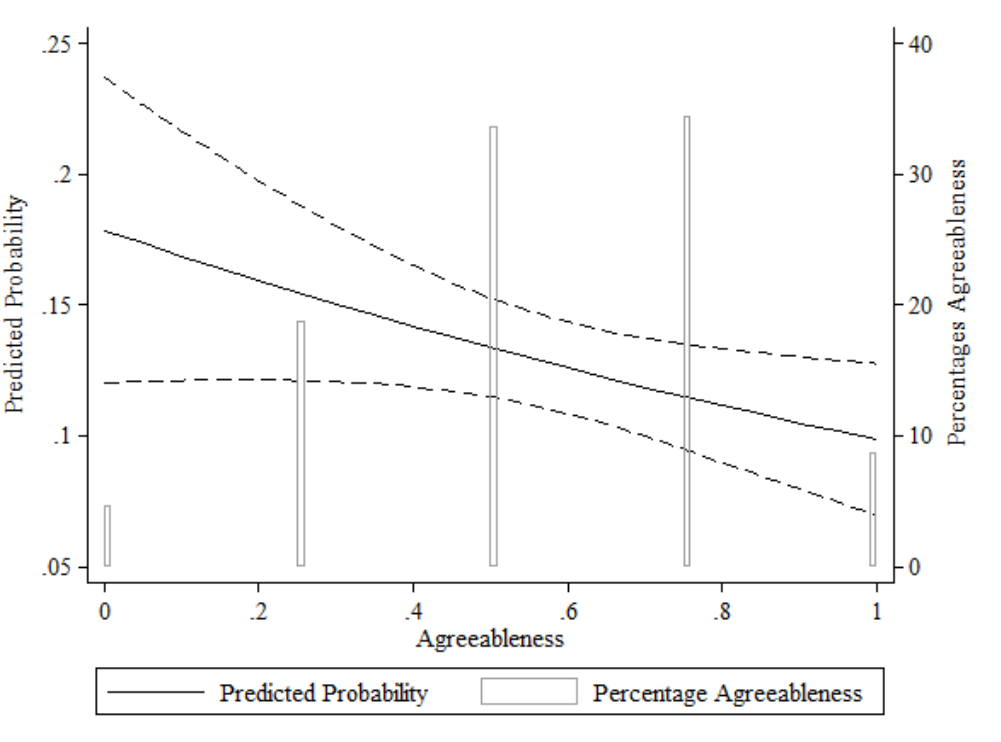
Note: Predicted support for the Tea Party based upon an ordered logistic regression where we keep the covariates at their central tendencies.

Figure 2. Predicted probability of supporting the Freedom Party (*The Netherlands*) for different levels of Agreeableness



Note: Predicted probabilities based upon a logistic regression where we keep the covariates at their central tendencies.

Figure 3. Predicted probability of supporting Die Linke (*Germany*) for different levels of Agreeableness



Note: The predicted probabilities are based upon a logistic regression where we keep the covariates at their central tendencies.

Supporting Information:

“The Psychological Roots of Populist Voting: Evidence from the United States, the Netherlands and Germany”

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Supporting Information A – Study 1: ANES 2012

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Table A.1 Item wording

Agreeableness	I see myself as sympathetic, warm. ¹ I see myself as critical, quarrelsome. ¹ (R)
Openness	I see myself as open to new experiences, complex. ¹ I see myself as conventional, uncreative. ¹ (R)
Conscientiousness	I see myself as dependable, self-disciplined ¹ I see myself as disorganized, careless. ¹ (R)
Extraversion	I see myself as extraverted, enthusiastic. ¹ I see myself as reserved, quit. ¹ (R)
Neuroticism	I see myself as anxious, easily upset. ¹ I see myself as calm, emotionally stable. ¹ (R)
Economic Attitudes	Where would you place YOURSELF on this scale, or haven't you thought much about this? Government should provide many fewer services: reducing spending a lot. Versus. Government should provide many more services: Increase spending a lot. ²
Social Attitudes	<ol style="list-style-type: none"> 1. The world is changing and we should adjust our view of moral behavior to those changes.³ 2. The newer lifestyles are contributing to the breakdown of our society.³ 3. We should be more tolerant of people who choose to live according to their own moral standards, even if they are very different from our own.³ 4. This country would have many fewer problems if there were more emphasis on traditional family ties.³
Authoritarianism	Please tell me which one you think is more important for a child to have: <ol style="list-style-type: none"> 1. Independence or Respect for elders 2. Curiosity or Good manners 3. Obedience or Self-reliance 4. Being considerate or Well behaved

Note: (R) signals reversed scored items.

¹“Extremely poorly” (1) through “Extremely well” (7)

² Seven point horizontal scale

³ “Agree strongly” through “Disagree strongly”

Table A.2 Descriptive statistics

Variable	M	SD	%	N	Min.	Max.	#Items	<i>r</i>	Alpha
Agreeableness	0.69	0.18		5,490	0	1	2	0.17	0.28
Openness	0.64	0.19		5,490	0	1	2	0.24	0.38
Conscientiousness	0.77	0.19		5,492	0	1	2	0.37	0.52
Extraversion	0.52	0.21		5,487	0	1	2	0.29	0.45
Neuroticism	0.34	0.20		5,487	0	1	2	0.36	0.52
Age	0.54	0.28		5,854	0	1			
Age-squared	0.36	0.36		5,854	0	1			
Gender				5,914					
Male			48.11						
Female			51.89						
Ethnicity				5,885					
White			59.39						
Black			17.26						
Hispanic			17.08						
Other			6.27						
Education				5,864					
Less than high school			10.61	622					
High School			24.59	1,442					
Some post-high school			33.63	1,972					
Bachelor			19.10	1,120					
Graduate			12.07	708					
Economic Attitudes ¹	0.52	0.27		5,241	0	1	1		
Social Attitudes ¹	0.56	0.23		5,470	0	1	4		0.70
Authoritarianism ²	0.62	0.31		5,041	0	1	4		0.61

¹Attitudes are scored to range from left to right.

²Authoritarianism is scored to range from the lowest to the highest level of authoritarianism.

Table A.3 Correlation between independent variables

	1	2	3	4	5	6	7
1 Openness	-						
2 Conscientiousness	0.28*	-					
3 Extraversion	0.29*	0.13*	-				
4 Agreeableness	0.18*	0.26*	0.01	-			
5 Neuroticism	-0.24*	-0.33*	-0.11*	-0.36*	-		
6 Economic Attitudes	-0.09*	0.10*	-0.01	-0.02	-0.06*	-	
7 Social Attitudes	-0.16*	0.11*	-0.00	0.07	-0.05*	0.37*	-
8 Authoritarianism	-0.13*	-0.00	0.00	-0.01	0.06*	0.01	0.29*

*p<0.05

Supporting Information B – Study 1: CCES 2010

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Table B.1 Item wording

Tea Party support	What is your view of the Tea Party movement—would you say it is very positive, somewhat positive, neutral, somewhat negative, or very negative, or don't you know enough about the Tea Party movement to say? ¹
Agreeableness	I see myself as sympathetic, warm. ² I see myself as critical, quarrelsome. ² ®
Openness	I see myself as open to new experiences, complex. ² I see myself as conventional, uncreative. ² ®
Conscientiousness	I see myself as dependable, self-disciplined ² I see myself as disorganized, careless. ² ®
Extraversion	I see myself as extraverted, enthusiastic. ² I see myself as reserved, quit. ² ®
Neuroticism	I see myself as anxious, easily upset. ² I see myself as calm, emotionally stable. ² ®
Economic Attitudes	If your state were to have a budget deficit this year it would have to raise taxes on income and sales or cut spending, such as on education, health care, welfare, and road construction. What would you prefer more raising taxes or cutting spending? Choose a point along the scale from 100% tax increases (and no spending cuts) to 100% spending cuts (and no tax increases). The point in the middle means that the budget should be balanced with equal amounts of spending cuts and tax increases. If you are not sure, or don't know, please check here:
Social Attitudes	Which one of the opinions on this page best agrees with your view on abortion? <ol style="list-style-type: none"> 1. By law, abortion should never be permitted. 2. The law should permit abortion only in case of rape, incest or when the woman's life is in danger. 3. The law should permit abortion for reasons other than rape, incest, or danger to the woman's life, but only after the need for the abortion has been clearly established. 4. By law, a woman should always be able to obtain an abortion as a matter of personal choice.
Authoritarianism	Please tell me which one you think is more important for a child to have: <ol style="list-style-type: none"> 1. Independence or Respect for elders 2. Curiosity or Good manners 3. Obedience or Self-reliance

Note: ® signals reversed scored items.

¹ “Very positive” (1) through “Very negative” (5)

² “Extremely poorly” (1) through “Extremely well” (7)

³ Seven point horizontal scale

⁴ “Agree strongly” through “Disagree strongly”

Table B.2 Descriptive statistics

Variable	M	SD	%	N	Min.	Max.	#Items	<i>r</i>	Alpha
Agreeableness	0.71	0.19		1,308	0	1	2	0.24	0.36
Openness	0.70	0.19		1,318	0	1	2	0.29	0.45
Conscientiousness	0.80	0.18		1,311	0	1	2	0.36	0.51
Extraversion	0.55	0.24		1,318	0	1	2	0.43	0.60
Neuroticism	0.30	0.22		1,292	0	1	2	0.50	0.65
Age	0.51	0.22		1,600	0	1			
Age-squared	0.30	0.21		1,600	0	1			
Gender									
Male			46.50	744					
Female			53.50	856					
Ethnicity									
White			76	1,216					
Black			11.88	190					
Hispanic			6.81	109					
Other			5.31	85					
Education									
Less than high school			1.56	25					
High School			19.44	311					
Some college			27.13	434					
2-year college			9.50	152					
4-year college			29.94	479					
Post-grad			12.44	199					
Economic Attitudes ¹	0.64	0.27			0	1	1		
Social Attitudes ¹	0.37	0.36			0	1	1		
Authoritarianism ²	0.61	0.35			0	1	3		0.62

¹Attitudes are scored to range from left to right.

²Authoritarianism is scored to range from the lowest to the highest level of authoritarianism.

Table B.3 Correlation between independent variables

	1	2	3	4	5	6	7
1 Openness	-						
2 Conscientiousness	0.23*	-					
3 Extraversion	0.32*	0.22*	-				
4 Agreeableness	0.20*	0.24*	0.00	-			
5 Neuroticism	-0.24*	-0.39*	-0.17*	-0.41*	-		
6 Economic Attitudes	-0.09*	0.13*	-0.01	-0.06*	-0.02	-	
7 Social Attitudes	-0.18*	0.02	-0.04	-0.03	0.01	0.37*	-
8 Authoritarianism	-0.15	0.10*	-0.01	0.06*	-0.01	0.24*	0.27*

*p<0.05

Supplementary Material C – Discriminant Validity

Citizens with low levels of Agreeableness could, for unknown reason, be more supportive of all political parties. If this is the case, we should find a strong connection between low levels of Agreeableness and support for the Democrats and Republicans. If we do not find this pattern, then we provide additional evidence that those low on Agreeableness are particularly likely to support the Tea Party. We test this alternative explanation by (1) analyzing the self-reported vote choice in the 2012 Presidential election and (2) the degree to which participants like or dislike the Democratic and Republican party reported in the ANES 2012.

First, using a multinomial regression we compare the extent to which Agreeableness is associated with the vote choice for Obama, Romney, an alternative candidate, or abstention. We set a vote for Obama as the base category but fail to find any association between Agreeableness and vote choice for either of the Presidential candidates. The results presented in Table C.1 illustrate that there are no differences in Agreeableness among voters who cast a vote for Obama and the vote for Romney, another candidate or abstain from voting. Thereby we fail to find support for the alternative explanation that the low agreeable will generally be attracted to politics.

In the second step we performed a series of OLS regression analyses using the favorability of the Democrats and the Republicans. Specifically, two separate items asks respondents to rate the extent to which they dislike (0) or like (1) the Democratic (or Republican) party. The results are presented in Table C.2. There is no positive association between low levels of Agreeableness and the support for the Republican party. Yet, we observe in line with others studies (Gerber et al., 2011; Mondak & Halperin, 2008) that high scorers on Agreeableness are more likely to support the Democratic party.

To summarize, in this study we have isolated support for the Tea Party and not a general association between low levels of Agreeableness and support for political parties.

Table C.1 Multinomial regression analyses of vote choice in the 2012 presidential elections (ANES 2012)

	Romney	Other	Abstention
Agreeableness	0.71 (0.19)	1.01 (0.65)	0.63 (0.17)
Openness	0.37* (0.10)	0.91 (0.48)	0.80 (0.18)
Conscientiousness	1.25 (0.40)	0.40 (0.26)	0.48* (0.12)
Extraversion	1.60* (0.37)	0.36 (0.19)	1.13 (0.26)
Neuroticism	0.91 (0.17)	1.11 (0.80)	1.07 (0.24)
Female	0.99 (0.12)	0.54* (0.12)	0.86* (0.07)
Age	0.56 (0.36)	0.39 (0.56)	0.09* (0.06)
Age ²	1.05 (0.56)	0.43 (0.63)	1.20 (0.88)
Race			
Black	0.03* (0.01)	0.12* (0.05)	0.21* (0.03)
Hispanic	0.34* (0.05)	0.49* (0.15)	0.68* (0.12)
Other	0.47* (0.10)	1.23 (0.33)	0.95 (0.23)
Education	0.97 (0.05)	0.98 (0.12)	0.61* (0.03)
Economic Attitudes	96.01* (26.15)	25.98* (13.25)	4.22* (0.79)
Social Attitudes	218.05* (49.04)	12.81* (6.03)	12.49* (3.12)
Authoritarianism	1.29 (0.19)	0.43* (0.13)	1.55* (0.32)
Constant	0.01* (0.00)	0.07* (0.08)	2.40* (1.07)
N	4,382		
Wald Chi ²	30,340		
Log pseudolikelihood	-3,446		
Pseudo R ²	0.30		

Relative Risk Ratios reported with observations clustered at the state level. Vote for Obama is the base category. * $p < 0.05$

Table C.2 Agreeableness and the likability of the Democratic and Republican party (*ANES 2012*)

	Democratic party	Republican party
Agreeableness	0.09* (0.02)	-0.00 (0.03)
Openness	0.08* (0.02)	-0.09* (0.02)
Conscientiousness	0.05* (0.02)	0.02 (0.02)
Extraversion	0.02 (0.02)	0.10* (0.02)
Neuroticism	0.02 (0.02)	-0.02 (0.02)
Age	0.02* (0.01)	0.00 (0.01)
Age ²	0.09 (0.05)	-0.17* (0.06)
Female	0.01 (0.05)	0.10 (0.05)
Race		
Black	0.21* (0.02)	-0.13* (0.01)
Hispanic	0.11* (0.01)	-0.04* (0.01)
Other	0.06* (0.02)	-0.05* (0.02)
Education	-0.01* (0.00)	-0.01 (0.00)
Economic Attitudes	-0.46* (0.02)	0.30* (0.02)
Social Attitudes	-0.43* (0.02)	0.33* (0.02)
Authoritarianism	0.02* (0.01)	0.08* (0.01)
Constant	0.76* (0.03)	0.14* (0.03)
N	4,380	4,382
R ²	0.47	0.31

In all models we run OLS regression models with standard errors clustered at the state level. Regression coefficients with standard errors in parentheses are reported. *p < 0.05

Supporting Information D – Study 2: Voting for the Freedom Party

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Table D.1 Item wording

Agreeableness	<ol style="list-style-type: none"> 1. Insult people ® 2. Have a soft heart 3. Sympathize with others' feelings 4. Feel little concern for others ® 5. Am not interested in other people's problems (R 6. Take time out for others 7. Make people feel at ease 8. Am interested in people 9. Am not really interested in others ® 10. Feel others' emotions
Extraversion	<ol style="list-style-type: none"> 1. Am the life of the party 2. Don't talk a lot 3. Feel comfortable around people 4. Keep in the background ® 5. Start conversations ® 6. Have little to say ® 7. Talk to a lot of different people at parties 8. Don't like to draw attention to myself ® 9. Am quiet around strangers ® 10. Don't mind being in the center of attention
Conscientiousness	<ol style="list-style-type: none"> 1. Am always prepared 2. Leave my belongings around ® 3. Pay attention to details ® 4. Make a mess of things ® 5. Get chores done right away 6. Often forget to put things back in proper place ® 7. Like order 8. Shirk my duties ® 9. Follow a schedule 10. Am exact in my work
Neuroticism	<ol style="list-style-type: none"> 1. Get stressed out easily ® 2. Am relaxed most of the time 3. Worry about things ® 4. Seldom feel blue ® 5. Am easily disturbed 6. Get upset easily 7. Change my mood a lot 8. Have frequent mood swings 9. Get irritated easily 10. Often feel blue ®

Openness

1. Have a rich vocabulary
2. Have difficulty understanding abstract ideas ®
3. Have a vivid imagination
4. Am not interested in abstract ideas ®
5. Have excellent ideas
6. Do not have a good imagination ®
7. Am full of ideas
8. Spend time reflecting about things
9. Use difficult words
10. Am quick to understand things

Economic Attitudes Differences in income should increase” (1) through “Differences in income should decrease (5)

Social Attitudes It should be made easier to obtain asylum in the Netherlands^a

Note: ® signals reversed scored items.

All personality items are scored on a scale ranging from “very inaccurate” (1) through “very accurate” (5)

^a “fully disagree” (1) through “fully agree” (5)

Table D.2 Descriptive statistics

Variable	M	SD	%	N	Min.	Max.	#Items	Alpha
Agreeableness	0.66	0.15		4,870	0	1	10	0.81
Openness	0.53	0.15		4,870	0	1	10	0.77
Conscientiousness	0.64	0.15		4,870	0	1	10	0.79
Extraversion	0.56	0.16		4,870	0	1	10	0.87
Neuroticism	0.38	0.17		4,870	0	1	10	0.88
Age	0.41	0.21		5,062	0	1	1	
Age-squared	0.21	0.18		5,062	0	1	1	
Gender				5,062			1	
Male			48.40					
Female			51.60					
Education								
Primary school			8.16				1	
Intermediary secondary			26.92					
Higher secondary			11.09					
Intermediate vocational			22.24					
Higher vocational			23.23					
University			8.36					
Economic Attitudes ¹	0.30	0.25		4,869	0	1	1	
Social Attitudes ¹	0.72	0.22		5,053	0	1	1	

¹Attitudes are scored to range from left to right.

Table D.3 Correlation between independent variables

	1	2	3	4	5	6
1 Openness	-					
2 Conscientiousness	0.20*	-				
3 Extraversion	0.34*	0.10*	-			
4 Agreeableness	0.27*	0.30*	0.31*	-		
5 Neuroticism	-0.19*	-0.23*	-0.26*	-0.07*	-	
6 Economic Attitudes	0.10*	0.00	0.10*	-0.10*	-0.09*	-
7 Social Attitudes	-0.04*	0.09*	0.02	-0.07*	-0.02	0.12*

*p<0.05

Supporting Information E – Study 3: Voting for Die Linke

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Table E.1 Item wording

Vote for Die Linke	You were entitled to vote twice in the Bundestag election. First for a candidate from your constituency and second for a party. This is an example ballot paper which is similar to the one you were given for the federal election. Where did you place your crosses on your ballot paper? Please tell me the applicable number for your first and for your second vote.
<i>Personality</i>	Please tell me to what extent you think the statements in the following list accurately describe you
Agreeableness	I easily trust other people and see the good in others. ¹
Openness	I have an active imagination and am inventive. ¹
Conscientiousness	I perform tasks very thoroughly. ¹
Extraversion	I tend to be somewhat shy and reserved. ® ¹
Neuroticism	I easily get nervous and uneasy. ¹
Economic Attitudes	And what is your view about taxes and government spending on health, education and social benefits? Which of the positions on the scale from 1 to 11 reflects your own view. (1) “Lower taxes/Less government spending on health, education and social benefits” through (11) “More government spending on health, education and social benefits/Higher taxes” and “don’t know”
Social Attitudes	And what is your view on the immigration of foreigners. Please use the following scale. (1) “Laws on immigration should be relaxed” through (11) “Laws on immigration should be tougher”

Note: ® signals reversed scored items.

¹ “Not true at all” (1) through “Definitely true” (5)

Table E.2 Descriptive statistics

Variable	M	SD	%	N	Min.	Max.	#Items
Agreeableness	0.55	0.25		2,088	0	1	1
Openness	0.65	0.25		2,072	0	1	1
Conscientiousness	0.83	0.20		2,081	0	1	1
Extraversion	0.52	0.39		2,089	0	1	1
Neuroticism	0.34	0.26		2,079	0	1	1
Age	0.43	0.24		2,095	0	1	1
Age-squared	0.24	0.21		2,095	0	1	1
Gender							
Male			47.11	987			
Female			52.89	2,108			
Education							
No schooling			1.58	33			
Lowest formal qualification			40.14	841			
Intermediary secondary qualification			36.56	766			
Certificate fulfilling entrance to university			4.06	85			
Higher qualification			16.66	349			
Post-graduate			1.01	21			
Economic Attitudes ¹	0.52	0.27		1,903	0	1	1
Social Attitudes ¹	0.68	0.27		1,999	0	1	1

¹Attitudes are scored to range from left to right.

Table E.3 Correlation between independent variables

	1	2	3	4	5	6
1 Openness	-					
2 Conscientiousness	0.31*	-				
3 Extraversion	0.19*	0.04	-			
4 Agreeableness	0.17*	0.11*	0.08*	-		
5 Neuroticism	-0.16*	-0.26	-0.42*	-0.01	-	
6 Economic Attitudes	-0.02	0.05*	-0.01	-0.06*	-0.01	-
7 Social Attitudes	-0.14*	0.08*	0.00	-0.17*	-0.00	0.09*

*p<0.05

Supporting Information F – Populist Parties vs. Progressive and Conservative Parties

In this SI we test whether the influence of Agreeableness on populist voting is more akin to its influence on conservative vs. progressive voting. We can only test this in the Netherlands and Germany as these are multiparty systems in which we measure vote intention, while in the US samples we do not have indicators of vote intention for Tea Party candidates (see discussion in the paper). We first discuss the results for the Netherlands followed by the results for Germany.

The Netherlands

First, we created a variable in the Netherlands that operationalizes the vote intention for the Freedom Party, progressive parties (Labour, Greens, Socialist Party, Animal Party), the conservative parties (CDA; VVD; SGP; CU; List Rita Verdonk), and other intentions (abstention, etc.). Table F.1 presents the results of a multinomial logistic regression model where we set the vote intention for the Freedom Party at the base category.

We confirm that Agreeableness is higher among respondents that intent to vote for the progressive and conservative parties compared with respondents that have the intention to vote for the populist party. Turning to the alternative explanations, we observe that vote intention with a progressive party is associated with higher levels of Openness but lower levels of Conscientiousness as well as left wing social and economic ideology. Likewise, voters of conservative parties tend to not differ from voters of the Freedom Party when it comes to Openness and Conscientiousness. This is not surprising as they share the same host ideology.

In sum, the results in the Netherlands strongly support that Freedom Party supporters tend to score lower on Agreeableness compared to voters for progressive and conservative parties. Next, we turn to the results of the German sample.

Germany

Again, we create a variable which captures support for Die Linke, the progressive parties (Labour party; Greens) and the conservative parties (CDU; FDP; others). Next, we ran a multinomial regression model which we present in Table F.2. Again, we find that voters of conservative parties score higher on Agreeableness compared to voters for Die Linke. Yet, there is no difference between voters for Die Linke and the progressive parties. The coefficient is in the expected direction but does not cross the threshold of statistical significance ($p=0.162$).

Turning to the alternative explanations, we observe that supporters of Die Linke do not differ from supporters of progressive parties on the traits Openness, Conscientiousness and Neuroticism. Yet, and as expected, we find that supports of the conservative parties score lower on Openness but, unexpectedly, do not differ on their level of Conscientiousness.

The unexpected findings when it comes to Agreeableness and Conscientiousness could have two explanations. First, the coefficients are in the expected direction, which could mean that the null findings is due to chance. Second, the brief measures of personality might lead to some underestimation of the association between personality traits and the dependent variables of interest. Future research could benefit from including larger personality inventories (Credé et al., 2012).

Conclusion

In these analyses, we provide additional support that support for a populist party is associated with lower levels of Agreeableness compared to support for progressive and conservative parties.

Table F.1 Vote intention for the Freedom Party compared to vote intentions for Progressive and Conservative parties in the Netherlands

	Progressive	Conservatives	Other
Agreeableness	3.19* (1.35)	2.98* (1.26)	1.15 (0.57)
Openness	4.52* (1.72)	0.63 (0.23)	0.40* (0.18)
Conscientiousness	0.40* (0.15)	1.25 (0.48)	0.75 (0.34)
Extraversion	0.32* (0.12)	0.40* (0.15)	0.48 (0.20)
Neuroticism	0.90 (0.30)	0.50* (0.16)	1.05 (0.40)
Female	1.59* (0.16)	1.49* (0.15)	1.73* (0.21)
Age	9.07* (8.80)	0.21 (0.19)	0.26 (0.28)
Age ²	0.19 (0.22)	33.85* (35.85)	0.57 (0.82)
Education	1.47* (0.06)	1.35* (0.05)	1.08 (0.05)
Economic Attitudes	0.28* (0.07)	3.73* (0.87)	0.39* (0.11)
Social Attitudes	0.00* (0.00)	0.02* (0.01)	0.01* (0.00)
Constant	26.59* (14.49)	8.50* (4.59)	98.22* (60.90)
N	4,655		
Wald Chi ²	1050.41		
Log pseudolikelihood	-5171.39		
R ²	0.12		

Relative risk ratio's reported with standard errors reported in parentheses. Observations are clustered at the household level. *p<0.05.

Table F.2 Vote intention for the Freedom Party compared to vote intentions for Progressive and Conservative parties in the German sample

	Progressive	Conservative
Agreeableness	1.70 (0.64)	2.31* (0.86)
Openness	0.48 (0.22)	0.28* (0.12)
Conscientiousness	1.32 (0.70)	2.14 (1.13)
Extraversion	0.40* (0.15)	0.55 (0.20)
Neuroticism	0.70 (0.29)	0.76 (0.31)
Female	1.31 (0.24)	1.23 (0.22)
Age	0.13 (0.21)	0.15 (0.24)
Age ²	6.90 (12.41)	8.84 (15.72)
Education	1.04 (0.10)	1.24* (0.12)
Economic Attitudes	1.51 (0.58)	28.20* (10.89)
Social Attitudes	0.34* (0.13)	2.22* (0.83)
Constant	7.31* (6.15)	0.25 (0.21)
N	1,348	
LR Chi ²	267.20	
Log pseudolikelihood	-1175.87	
R ²	0.10	

Relative risk ratio's reported with standard errors reported in parentheses. *p<0.05.

Supporting Information G – Interactions between personality traits

Agreeableness is positively correlated with both Openness and Conscientiousness in all four samples (see Supplementary Materials Table A.3 [ANES], Table B.3 [CCES], Table D3 [Netherlands] and Table E.3 [Germany]). Openness and Conscientiousness are also the two most consistent predictors of political ideology. One might wonder whether the effect of Agreeableness is conditional upon the level of Openness and/or Conscientiousness. In order to test this expectation, we run regression models where we have interacted Agreeableness with Openness and Conscientiousness. We present the results in Table G.1 (ANES 2012 & CCES 2010) and G.2 (Dutch and German sample). In order to further interpret the results of these interaction effects, we have calculated the marginal effect of Agreeableness over the range of Openness and Conscientiousness. Yet, not one of the interaction effects indicated that the effect of Agreeableness is conditional upon the level of Openness or Conscientiousness. We do not present the plots of the marginal effects here, but these are available from the authors upon request.

Table G.1 Agreeableness X Openness and Conscientiousness in ANES 2012 and CCES 2010

	ANES 2012	CCES 2010
Agreeableness	0.18* (0.15)	0.54 (0.93)
Openness	0.77 (0.57)	0.48 (0.71)
Conscientiousness	0.37 (0.23)	2.14 (3.54)
Extraversion	1.14 (0.18)	1.43 (0.48)
Neuroticism	0.78 (0.13)	0.44* (0.18)
Age	0.67 (0.29)	0.20 (0.32)
Age ²	0.72 (0.29)	12.80 (22.04)
Female	1.06 (0.07)	0.92 (0.15)
Race		
Black	0.39* (0.06)	0.28* (0.08)
Hispanic	1.05 (0.09)	0.87 (0.24)
Other	1.16 (0.17)	1.26 (0.29)
Education	0.81* (0.02)	0.93 (0.05)
Authoritarianism	1.70* (0.18)	1.33 (0.27)
Economic Attitudes	16.00* (2.18)	302.61* (104.73)
Social Attitudes	24.06* (3.27)	8.71* (1.94)
Agreeableness X Openness	1.02 (1.00)	1.83 (3.68)
Agreeableness X Conscientiousness	4.43 (3.90)	0.49 (1.18)
N	4,210	987
Pseudo R ²	0.13	0.28
Wald Chi ²	1,943	1,400
Log pseudolikelihood	-6,040	-1,028
Δ Chi ²	<i>ns</i>	<i>ns</i>

In all models we run ordered logistic regression models with standard errors clustered at the state level. Proportional odds ratios with standard errors in parentheses are reported. *p < 0.05

Table G.2 Agreeableness X Openness and Conscientiousness in the Dutch and German samples

	Dutch Sample	German Sample
Agreeableness	0.85 (1.19)	0.05 (0.08)
Openness	1.37 (1.69)	1.26 (1.21)
Conscientiousness	1.87 (2.31)	0.28 (0.29)
Extraversion	2.67* (0.88)	2.07* (0.70)
Neuroticism	1.35 (0.40)	1.44 (0.55)
Female	0.63* (0.06)	0.80 (0.14)
Age	1.53 (1.28)	6.83 (10.52)
Age ²	0.27 (0.27)	0.14 (0.23)
Education	0.74* (0.03)	0.88 (0.08)
Economic Attitudes	1.07 (0.22)	0.14* (0.05)
Social Attitudes	136.96* (45.86)	1.20 (0.41)
Agreeableness X Openness	0.39 (0.72)	3.96 (6.08)
Agreeableness X Conscientiousness	0.65 (1.19)	4.31 (7.63)
Constant	0.01* (0.01)	1.13 (1.18)
N	4,655	1,348
Pseudo R ²	0.15	0.05
Wald Chi ²	390	55
Log likelihood	-1,565	-487
ΔChi ²	<i>ns</i>	<i>ns</i>

Logistic regression models, odds ratios reported with standard errors in the parentheses. Observations are clustered at the household level. *p < 0.05

Supporting Information H – Interactions: Agreeableness X Social and Economic Ideology

We argue in this study that Agreeableness is a predictor of voting for populist parties irrespective of the ‘host’ ideology. Yet, one could argue that the effects of Agreeableness on support for populist parties is especially strong when the ‘host’ ideology is incongruent. In other words, when voters have left-wing social attitudes the effect of Agreeableness on support for the Tea Party might be more profound. Likewise, we could expect that the effect of Agreeableness on support for Die Linke is more profound when voters have right-wing economic attitudes. To summarize, one might put forward that the effect of Agreeableness is the most profound once there is incongruence between the ideology of voters and the ‘host’ ideology of the voters.

In order to test these expectations, we estimated an additional regression model for each sample, whereby we have interacted Agreeableness with social and economic attitudes. We present the results in Table H.1 (ANES 2012 & CCES 2010) and H.2 (Dutch and German sample). In order to further interpret the results of these interaction effects, we have calculated the marginal effect of Agreeableness over the range of social and economic attitudes. Yet, in none of the US samples we find proof that the effects of Agreeableness are conditional upon the ideology of voters (Table H.1). We do not present plots of the marginal effects here but these are available from the authors upon request.

Next, we turn to the interaction effects between Agreeableness and ideology in the Dutch and German sample (Table H.2). Here, we observe a different pattern. In both samples, there is an interaction effect between Agreeableness and social ideology (Netherlands: $p = 0.05$; Germany: $p < 0.05$). In order to interpret the interaction effect, we present plots of the predicted probability to vote for the populist party over the range of the social attitude dimension (ranging from left to right) among low (2 standard deviations below the mean) and high scorers (2 standard deviations above the mean) on Agreeableness. Starting with the

results from the Dutch sample, we observe that among voters with a right wing attitudes, there is larger probability to vote for the Freedom Party among the low agreeable compared to the high agreeable (see Figure H.1). A similar pattern is observed in the German sample (see Figure H.2). Again, there is higher probability to support Die Linke among right-wing voters that score low on Agreeableness compared to right-wing voters that are agreeable.

Conclusion

These results partly support the notion that personality and ideology interact in shaping the likelihood to vote for populist parties. First, the results indicate that the prediction that Agreeableness increases the probability to vote for populist parties once the political attitudes of the voter differ from the ‘host’ ideology of the populist party is not correct. Instead, there seems to be a more diffuse pattern. First, in the US there is no interaction between personality and political ideology. Second, in the Netherlands and Germany there is an interaction between Agreeableness and ideology. Specifically, in both samples, the low agreeable voters are more likely to support the populist party when they also hold right-wing social attitudes. Interestingly, right-wing social attitudes are congruent with the ‘host’ ideology of the Freedom Party in the Netherlands but not of Die Linke in Germany.

The here documented results could have various explanations. First, the differences between the different political contexts could be driven by unique country specific effects. Yet, the results might also be driven by the measurement of Agreeableness and/or ideology. Therefore, future research using truly equivalent measures of Agreeableness and ideology should be used to replicate and further elaborate on these findings. The results presented here should be seen as preliminary explorations of the interaction between Agreeableness and political ideology.

Table H.1 Agreeableness X Ideology in 2012 (ANES) and 2010 (CCES)

	ANES 2012	CCES 2010
Agreeableness	0.56 (0.27)	1.53 (1.69)
Openness	0.79 (0.12)	0.71 (0.31)
Conscientiousness	1.00 (0.17)	1.29 (0.53)
Extraversion	1.15 (0.18)	1.44 (0.48)
Neuroticism	0.78 (0.12)	0.43* (0.18)
Age	0.67 (0.29)	0.20 (0.33)
Age ²	0.72 (0.29)	12.48 (21.49)
Female	1.07 (0.07)	0.92 (0.15)
Race		
Black	0.39* (0.06)	0.28* (0.08)
Hispanic	1.05 (0.09)	0.86 (0.23)
Other	1.17 (0.16)	1.29 (0.30)
Education	0.81* (0.02)	0.93 (0.05)
Authoritarianism	1.71* (0.19)	1.35 (0.27)
Economic Attitudes	12.40* (6.23)	1,549.06* (1,713.08)
Social Attitudes	28.48* (13.73)	4.40* (3.15)
Agreeableness X Economic Attitudes	1.44 (0.93)	0.10 (0.15)
Agreeableness X Social Attitudes	0.78 (0.55)	2.67 (2.57)
N	4,210	987
Pseudo R ²	1,858	1,798
Wald Chi ²	0.13	0.28
Log pseudolikelihood	-6,042	-1,027
Δ Chi ²	<i>ns</i>	<i>ns</i>

In all models we run ordered logistic regression models with standard errors clustered at the state level. Proportional odds ratios with standard errors in parentheses are reported. *p < 0.05

Table H.2 Agreeableness X Ideology in the Dutch and German samples

	Dutch Sample	German Sample
Agreeableness	0.01* (0.02)	4.75 (5.19)
Openness	0.75 (0.25)	2.50* (1.04)
Conscientiousness	1.46 (0.51)	0.52 (0.26)
Extraversion	2.64* (0.87)	2.12* (0.72)
Neuroticism	1.34 (0.40)	1.40 (0.54)
Female	0.64* (0.06)	0.82 (0.14)
Age	1.55 (1.29)	7.74 (11.93)
Age ²	0.27 (0.27)	0.12 (0.20)
Education	0.74* (0.03)	0.87 (0.08)
Economic Attitudes	1.02 (0.84)	0.21 (0.17)
Social Attitudes	8.69 (12.58)	6.47* (5.52)
Agreeableness X Economic Attitudes	1.08 (1.35)	0.52 (0.67)
Agreeableness X Social Attitudes	74.35# (163.13)	0.06* (0.07)
Constant	0.17 (0.22)	0.09* (0.10)
N	4,655	1,348
Pseudo R ²	0.16	0.06
Wald Chi ²	381	58
Log likelihood	-1,563	-485
Δ Chi ²	<i>ns</i>	5.33 (df = 2)

In both models we present the results of logistic regression models. Odds ratios reported with standard errors in the parentheses. Observations are clustered at the household level in the Dutch sample. *p < 0.05; #p < 0.1

Figure H.1 Predicted support for the Freedom Party among voters with low (5th percentile) and high (95th percentile) levels of Agreeableness conditional upon their social attitudes

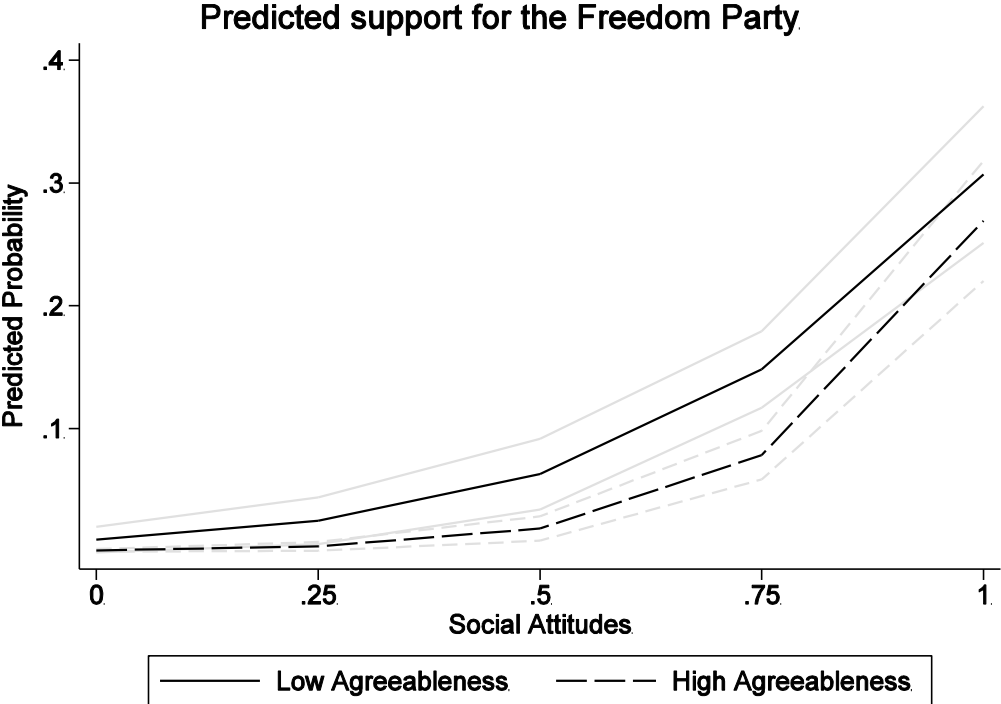


Figure H.2 Predicted support for Die Linke among voters with low (5th percentile) and high (95th percentile) levels of Agreeableness conditional upon their social attitudes

