

The relative weight of character traits in political candidate evaluations: Warmth is more important than competence, leadership and integrity



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ABSTRACT

Decades of research has found that voters' electoral decisions to a significant degree are affected by character evaluations of candidates. Yet it remains unresolved which specific candidate traits voters find most important. In political science it is often argued that competence-related traits are most influential, whereas work in social psychology suggests that warmth-related traits are more influential. Here we test which character trait is the more influential in global candidate evaluations and vote choice using observational data from the ANES 1984–2008 and an original experiment conducted on a representative sample of English partisan respondents. Across the two studies we find that warmth is more influential than competence, leadership and integrity. Importantly, results hold across a wide range of alternative specifications and robustness analyses. We conclude by discussing theoretical and practical implications of the results.

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1. Introduction

Democratic elections—in essence—offer a choice between alternative political representatives. Regardless of the specificities of the electoral system, voters face a choice between political alternatives represented and led by their respective front runners. Consequently, both classic and more recent work in electoral and political behavior finds that elections are influenced by voters' perceptions of competing candidates' personalities (e.g. Campbell et al., 1960: p. 66; Stokes, 1966; Kinder et al., 1980; Popkin, 1994; Funk, 1999; Hayes, 2009). Most importantly, it is shown that the more positively voters evaluate a candidate's personality, the better are the chances of electoral victory for the candidate (e.g., Miller et al., 1986; Kinder, 1986; Funk, 1996, 1997, 1999; Stevens and Karp, 2012; Jenssen and Aalberg, 2006; Goren, 2002; Clarke et al., 2004; for a more skeptical account see Bartels, 2002). However, the literature remains unresolved about which specific trait evaluations are most important in voters' global candidate evaluations and ultimately their vote choices.

Political science and social psychology reach different conclusions on which specific trait is the most influential in candidate evaluations. Political science stresses competence-related character traits; social psychology focuses on warmth-related traits. Based on a logic of task relevance in the evaluation process, political scientists have typically argued that when it comes to evaluations of political candidates, competence should be more important than warmth since this trait is “particularly relevant to the task of judging political leaders” (Funk, 1997: p. 676; see also Funk, 1996; McGraw, 2011; McAllister, 2016). Furthermore, empirical studies of the relative strength of trait perceptions of warmth and competence have typically found that competence is more important than warmth in guiding evaluations of political candidates and informing vote choices (e.g. Markus, 1982; Kinder, 1986; Funk, 1996, 1997, 1999). Yet, outside the domain of politics, social psychologists find that warmth-related traits are more important in social perception in general. That is, perceptions of another individual's warmth are formed before and hold primacy over perceptions of competence (Fiske et al., 2007).

In this article, we revisit the question of the relative importance of different traits in voters' global candidate evaluations and vote choice decisions. We draw on two data sources that combine observational and experimental data from two countries, ensuring

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high internal and external validity. First, we analyze all available American National Election Studies (ANES) data on closed-ended trait evaluations of candidates for the American presidency between 1984 and 2008. This data constitutes a solid basis for the analysis as it covers all major presidential candidates over three decades in recent American political history and includes candidate evaluations on several different traits (see McGraw, 2011; McAllister, 2016). Second, we analyze an original survey experiment with carefully manipulated descriptions of a fictitious candidate's warmth and competence conducted on a representative sample of English partisan respondents ($N = 824$). In contrast to the dominant view in political science literature, the results from both studies show that warmth-related character traits outperform competence-related traits (and leadership and integrity) in predicting global candidate evaluations and vote choice. Importantly, the results hold across a wide range of robustness tests and alternative specifications. We conclude by stressing the theoretical and practical implications of the results.

2. Theory and predictions

Given the centrality of political candidates in modern politics we might expect that voters are “projecting from a personal assessment of a candidate to ... what kind of president he will be in the future” (Popkin, 1994: 74). Along this line of reasoning, several political science studies find that voters tend to prefer candidates they perceive as having better character traits (e.g., Campbell et al., 1960; Miller and Miller, 1976; Markus, 1982; Hayes, 2009). In fact, some even argue that we are witnessing a “personalization of politics” as campaigns and politics in general focus increasingly on politicians and their personas (Wattenberg, 1991; McAllister, 2007; Lobo and Curtice, 2014; but see also Hayes, 2009). However, even though candidates' traits and personalities are acknowledged as substantially important factors for vote choice, the role and relevance of specific traits have not received sufficient attention. Consequently, it remains largely unresolved which specific trait dimensions are most influential in predicting voting behavior.

2.1. Different candidate traits: four- and two-dimensional trait models

Aggregating the dozens of traits on which candidates could possibly be evaluated is an important challenge for any study of the effects of candidate personalities. Broadly speaking, there are three approaches to clustering the different traits. The first lumps all trait evaluations into a single liking-disliking dimension (e.g. Lau, 1985; Lodge et al., 1989; Hayes, 2009). Studies following this approach may provide important insights about the valence of candidate evaluations and of the relative importance of candidate evaluations as opposed to other factors (issue position, retrospective voting etc.), but they offer few insights regarding the relative importance of some traits versus others. The second approach, introduced by Kinder (1986), applies a four-dimensional framework. Recent reviews of the literature conclude that this popular framework appears to successfully capture the bulk of the variance in candidate perceptions: “Although there is a seemingly infinite number of traits available in ordinary language, the most common traits used to characterize politicians tend to fall into a limited number of categories: competence (‘intelligent,’ ‘hard working’), leadership (‘inspiring,’ ‘[not] weak’), integrity (‘honest,’ ‘moral’), and empathy (‘compassionate,’ ‘cares about people’)” (McGraw, 2011: p. 190; see also McAllister, 2016; Bartels, 2002; Hayes, 2005; Laustsen, 2016 for studies applying similar frameworks).

The third framework proposes that trait ratings fall into two dimensions (e.g. Markus, 1982; Miller and Miller, 1976; Stewart and

Clarke, 1992; McCurley and Mondak, 1995) and thereby suggests that the four-dimensional framework can be further aggregated by lumping competence and leadership as well as integrity and warmth together (McAllister, 2016; Ohr and Oscarsson, 2013; Bittner, 2011). This approach also relates to well-established models of social perception. Seminal studies in social psychology have established that warmth and competence are universal dimensions of social perception (Fiske et al., 2002, 2007; Oosterhof and Todorov, 2008).¹ In fact, there is evidence that people spontaneously and perhaps unconsciously categorize others along these two dimensions (Bor, 2017; van Leeuwen et al., 2012). In this literature, warmth is linked to attributes such as trustworthiness, morality, friendliness, helpfulness and sincerity, while competence relates to knowledge, intelligence, confidence, skill, foresight and efficiency.

While this review is by no means exhaustive—nor does it do justice to the wealth of research conducted on candidate evaluations across countries and elections—it does stress important regularities in the way research has typically categorized different traits. Our paper seeks to satisfy the proponents of both two- and four-dimensional frameworks. In Study 1, we use a four-dimensional model to provide a more fine-grained picture, to comply with the trend in most recent works and to allow comparisons with several other ANES studies. In Study 2, we demonstrate that our findings replicate based on the more parsimonious two-dimensional framework as well and when we experimentally manipulate warmth and competence. However, before turning our attention to the analysis, we specify two competing predictions from the literature on candidate evaluation in political science and from models of social perception in social psychology, respectively.

2.2. Two competing predictions: competence versus warmth

Studies employing a multi-dimensional approach to candidate evaluations make it possible to investigate if voters are more affected by candidate perceptions on some traits than on others. Importantly for our study, there is a marked difference between the conclusions of the political science and social psychology literatures. In this section, we review the two literatures in turn.

Although much of the political science literature remains agnostic about the importance of specific traits, studies that seek an answer to this question imply that “of the four dimensions, competence appears to be most influential, at least in terms of evaluations of presidential candidates” (McGraw, 2011: p. 190; see also McAllister, 2016). Theoretically, this argument is supported by the observation that the main task for political leaders is to tackle the most urgent problems of the nation. Doing so is arguably highly demanding in skills, knowledge and energy. Therefore, voters should be (and in fact are) sensitive to candidates' competences to ensure that their preferred issue outcomes are realized (Popkin, 1994; Funk, 1997).

Most of the evidence that competence is the most “task relevant” trait for political leadership comes from election studies (Kinder, 1986; Markus, 1982; Funk, 1999). In addition, Funk (1997) provides experimental evidence that facing a decision between a competent but not warm and a warm but not competent candidate, participants prefer the former. The task relevance argument is

¹ The two dimensions are sometimes referred to as warmth and power, or valence and dominance (Fiske et al., 2007; Oosterhof and Todorov, 2008; Rule et al., 2010). The central part of the models is that individuals perform two types of evaluations when encountering other individuals: “Warmth” relates to whether the other individual is friend or foe and, thus, has good or bad intentions, and “Competence” refers to whether the other individual is capable of acting on her/his intentions.

further supported by evidence that more highly educated (and arguably “rational”) voters are more likely to state that competence is an important attribute of an ideal president and consequently are more influenced by competence evaluations in their vote choice decisions (Kinder et al., 1980). Our first prediction, that political candidates are primarily judged by their perceived competence, follows the political science literature. We refer to this as the *candidate competence prediction*.

However, there are reasons to be skeptical about this prediction. First, the political science literature is open about its limitations. Classic studies note that there could be substantial variation between elections in terms of which attributes of candidates’ personalities come to the forefront (Kinder and Sears, 1985; Funk, 1999). Indeed, some studies indicate that warmth-related traits at times may have a larger effect than competence (McCurley and Mondak, 1995; Wojciszke and Klusek, 1996). It is therefore disconcerting that most previous studies have little over time variation. Even studies that include multiple elections ignore the opportunity to pool them to learn about the general patterns. Moreover, the bulk of the research was conducted 20–30 years ago, almost exclusively in the US and almost exclusively on presidential candidates, so there may be concerns that their conclusions are outdated or do not generalize to other countries and electoral races. Finally, despite efforts to reduce concerns about endogeneity and confounding, the only two experimental studies published so far (Funk, 1996, 1997) relies on small student samples from the US.

There is also another, theoretical reason to investigate how well the candidate competence prediction holds. Studies in social psychology consistently find that warmth trumps competence in social perceptions more generally (Brambilla et al., 2011; Goodwin et al., 2014; Leach et al., 2013; Wojciszke, 2005). Theoretically, this argument is informed by evolutionary reasoning: “another person’s intent for good or ill is more important to survival than whether the other person can act on those intentions” (Fiske et al., 2007: p.77). The empirical support for this theory is overwhelming. Research shows that warmth evaluations are faster and receive more weight in affective and behavioral responses than judgments of competence (and related traits such as power) (Fiske et al., 2007). Our second prediction, the *warmth supremacy prediction*, thus follows this social psychology literature.

The warmth supremacy prediction has not received much support when it comes to candidate evaluations in political science so far (although it is in line with findings reported by for instance McCurley and Mondak, 1995; Bartels, 2002; Ohr and Oscarsson, 2013). This could be due to important differences between leader evaluation and other forms of social evaluation. Cutting-edge studies in political psychology provide convincing evidence that leader and partner evaluations rely on independent cognitive systems. For instance, preferences for dominance in leaders are upregulated in times of intergroup conflict and war, whereas preferences for dominance in friends remain unchanged by such contextual changes (Laustsen and Petersen, 2015). However, we see no theoretical reasons for general neglect or down-regulation of warmth-related traits in leader evaluations compared to evaluations of other social relations/categories. Ancestrally, leaders have been powerful individuals, both in terms of physical strength and social influence (Van Vugt, 2006; Boehm, 1999; Price and Van Vugt, 2015; von Rueden et al., 2011). Consequently, their ill intentions could impose severe costs on the fitness of individuals. Anthropological evidence suggests that the core mechanism contributing to the egalitarian structure of ancestral communities has been a constant and persistent effort to monitor and if necessary regulate overly assertive leaders (Boehm, 1999). This instinct causes modern humans to be extremely sensitive to anti-egalitarian and potentially exploitative behavior from leaders (Hibbing and Alford, 2004;

Smith et al., 2007; Bøggild, 2016; Bøggild and Laustsen, 2016). Based on these interdisciplinary insights on the leader-follower relation, we expect the warmth supremacy prediction to prevail.

Below, we test the two competing predictions against each other. Study 1 employs observational data from three decades of trait evaluations of US presidential candidates in the American National Election Studies. To gain causal leverage, Study 2 tests if key findings from Study 1 replicate in a controlled survey experiment with realistic manipulations of a fictitious parliamentary candidate’s competence and warmth conducted among a large and representative sample of English partisan respondents. Combined, our studies thus revisit the problem of relative trait importance in candidate evaluations and offer a number of improvements compared to previous research. First, we rely on more comprehensive observational data and more advanced statistical models. Second, we employ a representative English sample to experimentally test how well the observational results from the ANES replicate in a different cultural and institutional setting.

3. Study 1: American National Election Studies 1984–2008

Study 1 tests which character trait influences voters most using the American National Election Studies (ANES) 1984–2008. The ANES dataset includes trait ratings of competing presidential candidates across three decades and is therefore well suited for testing the relative influence of different character traits on global candidate evaluations as well as on vote choice. Moreover, it allows us to test if consistent patterns in the relative influence of trait ratings are found across different Democratic and Republican candidates, across campaigns centered around different political issues, and across elections marked by varying degrees of partisan polarization. The cumulative ANES dataset thus makes it possible to test the *warmth supremacy prediction* against the *candidate competence prediction* on data from multiple elections for the world’s most prominent political position and for candidates whose personalities are well known to voters.

The closed-ended trait ratings in the ANES data are already used in a series of analyses. Among the more notable studies, Bartels (2002) shows how party identification colors specific as well as global candidate evaluations; Hayes (2005) investigates parties’ ownerships of different character traits; and Goren (2002, 2007) explores partisan biases in perceptions of character weaknesses. In a comparative analysis of candidate traits across the United States, Australia, Germany and Sweden, Ohr and Oscarsson (2013) make election-specific trait comparisons, and Bartels (2002: p.61) very briefly touches upon the relative importance of different character traits in US presidential candidates. Here we extend these insights as we conduct the most comprehensive aggregate analysis to date of the closed-ended trait ratings in the ANES, exploring the relative importance of the four main trait dimensions—competence, warmth, leadership and integrity—in shaping global candidate evaluations and vote choice.

3.1. Data

Multiple candidate traits were measured in the ANES from 1980 to 2008. Most consistently, ratings of candidates’ *knowledge*, (*strong*) *leadership* and *morality* are measured across all elections in this period. Elections from 1984 and onwards also asked respondents to rate candidates’ *intelligence* and how much the candidate *really cares about people like you*. In other years, a few other traits were included: *Inspiration* from 1980 to 1996, *compassion* from 1984 to 1992, and *decency* in 1984 and 1988. Table 1 provides an overview of the available trait measures across the 1980–2008 elections:

3.2. Trait measures

The different candidate traits are measured using the same standard format (original ANES coding in parentheses): “Think about Barack Obama. In your opinion, does the phrase ‘he provides strong leadership’ describe Barack Obama ‘extremely well’ (1), ‘quite well’ (2), ‘not too well’ (3), or ‘not well at all’ (4). We keep the four categories but recode each variable to a 0–1 scale on which “0” and “1” indicate that a respondent perceives a candidate as low and high, respectively, on a given trait. Importantly, *competence* is comprised of the average rating of *knowledge* and *intelligence* ($r = 0.651$; $\alpha = 0.792$) (except for both candidates in 1980 and for the 1996 Republican candidate, Bob Dole, for whom ANES did not include perceived intelligence. In these cases, *competence* is only measured with *knowledge*); *warmth* is comprised of average ratings of *compassion* and *cares about people like you* for the 1984–1992 elections ($r = 0.655$; $\alpha = 0.758$) and only of the latter in the remaining elections (because *compassion* was not measured from 1996 and onwards). Finally, *leadership* and *integrity* are measured with the single item ratings of *strong leadership* and *morality*, respectively. Across the timespan in which a given trait was measured and across the nominated candidates this yields trait measures for respondents’ perceptions of candidate competence ($M = 0.67$; $SD = 0.23$), warmth ($M = 0.53$; $SD = 0.28$), leadership ($M = 0.55$; $SD = 0.29$), and integrity ($M = 0.62$; $SD = 0.28$).²

3.3. Global candidate evaluations and vote choice

We employ two dependent variables in our analyses. First, we capture respondents’ global candidate evaluations through their stated feelings towards a candidate on 0–100 feeling thermometers. Following the coding procedures for the specific trait evaluations above, the feeling thermometer ratings are recoded to 0–1 scales on which “0” reflects the most negative global evaluation, while “1” indicates the most positive global evaluation (all feeling thermometer ratings 1980–2008: $M = 0.56$; $SD = 0.27$). Second, we employ respondents’ actual vote choice between the Democratic and the Republican candidate. Specifically, vote choice is coded “1” for respondents voting for the evaluated candidate, while respondents NOT voting for the candidate are coded “0” (see [Supporting Information S.I.1](#) for detailed information on coding procedures for trait evaluations and dependent variables).³

3.4. Modelling procedure

Across all elections, respondents in the ANES have rated two competing candidates on both the main independent variables—trait ratings on *competence*, *warmth*, *leadership* and *integrity*—and

the two dependent variables feeling thermometer ratings and vote choice. In other words, we have two sets of ratings on the independent and the dependent variables per respondent. Meanwhile, all standard individual-level characteristics, such as respondent ideology, demographic characteristics, and even unobserved factors remain constant for each respondent. To take advantage of this type of data, we estimate the relationship between trait ratings and the dependent variables in models that include respondent fixed effect terms. We utilize the described nature of the dataset as we are (approximately) able to use each respondent as her/his own control, thereby reducing confounding for all (observed or unobserved) respondent characteristics that remain stable over the multiple measurements. This mimics the intuition behind within-subject experiments, although naturally without actually benefiting from randomized treatments ([Allison, 2009](#)). To also take into account that partisans most likely evaluate their own candidate more positively than the competing party’s candidate ([Bartels, 2002](#)), we control for the interaction between respondents’ party identification and the party of the candidate. Note that when respondent fixed effects are included in the models, no main effect of respondents’ party identification is estimated because values on this variable are invariant within the respondent. Importantly, the interactive relationship between party identification of the respondent and party of the candidate will still validly be estimated and, thus, controlled for when we estimate the relationships between the four candidate traits and feeling thermometer ratings and vote choices, respectively (see [Allison \(2009\)](#) for further details on interactions between a within-subject invariant variable (respondents’ party identification) and a within-subject variant variable (candidate party)). To also control for candidate-specific and election-specific factors, we include candidate dummies in the estimated models.⁴ Finally, when we employ respondents’ individual candidate evaluations as our unit of analysis, we have two observations for almost every respondent, which yields a total of 22,123 observations when we analyze global candidate evaluations and 13,128 observations when we analyze vote choice.

We test the predictions using linear regression when predicting respondents’ feeling thermometer ratings towards the candidates, and we apply logistic regression for vote choice analyses. All reported p -values are from two-sided tests of significance.⁵

3.5. Results

Below, we first investigate the relative importance of the four major trait dimensions, *competence*, *warmth*, *leadership* and *integrity*, on respondents’ global candidate evaluations across all elections from 1984 to 2008 (feeling thermometer ratings). Next, we test if a similar pattern emerges when we investigate the relative predictive power of the four traits on vote choices 1984–2008. Finally, we conduct a series of robustness analyses in which we

² To clarify if our categorization of the different specific candidate traits into four dimensions (competence, warmth, leadership and integrity) is supported empirically, we investigate how the different specific traits correlate both within and across the four dimensions employed in the main analyses here. Based on the elections for which data on all relevant specific traits is available (1984–1992), correlations are largest between traits categorized together. Specifically, the correlation between *knowledge* and *intelligence* is larger than correlations between *knowledge* or *intelligence* with any other trait. Likewise, the correlation between *compassion* and *cares about people like you* is larger than correlations between one of the two traits with any other trait. [Supporting Information S.I.2](#) reports the different inter-trait correlations. In sum, these analyses support that the four-dimensional categorization of traits applied in the main analyses here is sound.

³ In models predicting vote choice, we follow [Bartels \(2002\)](#) in only including respondents who report voting for the Democratic or the Republican candidate. Moreover, only Democratic and Republican candidates are included in the analyses since the ANES does not include trait ratings of other candidates in the analyzed time period (for instance Ross Perot in 1992).

⁴ Specifically, candidate dummies are included in the models by interacting the dummy for candidate party with the set of dummy variables that capture the election year. Yet, due to the respondent fixed effects procedure, no main effects of the election year dummies are estimated as they are invariant within-respondent (similarly to respondents’ party identification as explained in the text). Consequently, election-specific factors are controlled for through the respondent fixed effects while the interactions between election year and candidate party control for candidate-specific factors. Candidates representing the Republican and Democratic parties are coded “0” and “1”, respectively. Respondents’ party identification is measured using the standard ANES seven-category variable, which is recoded to a 0–1 scale with “0” representing “Strong Democrats” and “1” representing “Strong Republicans” (see [Supporting Information S.I.1](#) for more details on coding procedures).

⁵ Replication data and command files are available at Dataverse Network (<http://dx.doi.org/10.7910/DVN/6FKIHU>).

Table 1
Overview of trait ratings included in the American National Election Studies 1980–2008.

	Competence		— Strong leadership	Warmth		— Moral	— Inspiration	— Decency
	Knowledge	Intelligence		Cares about people like you	Compassion			
1980	X		X			X	X	
1984	X	X	X	X	X	X	X	X
1988	X	X	X	X	X	X	X	X
1992	X	X	X	X	X	X	X	
1996	X	(X)	X	X		X	X	
2000	X	X	X	X		X		
2004	X	X	X	X		X		
2008	X	X	X	X		X		

Note: The parentheses for the intelligence trait in the 1996 election indicate that intelligence was only measured for the Democratic candidate, Bill Clinton, and not for the Republican candidate, Bob Dole.

employ different alternative modelling procedures and explore the consistency of the results across separate elections.

3.5.1. Global candidate evaluations 1984–2008

First, the relative importance of the four trait dimensions is tested with respect to global candidate evaluations. If the *candidate competence prediction* is supported, competence should be a significantly stronger predictor than warmth (and leadership and integrity) of respondents' feeling thermometer ratings. In contrast, if warmth outperforms competence (and leadership and integrity), the *warmth supremacy prediction* is supported.

When predicting feeling thermometer ratings, all four traits constitute positive and significant predictors of global candidate evaluations ($b_{\text{competence}} = 0.13, p < 0.001$; $b_{\text{warmth}} = 0.35, p < 0.001$; $b_{\text{leadership}} = 0.24, p < 0.001$; $b_{\text{integrity}} = 0.14, p < 0.001$). Model A in Table 2 provides the full model for the reported results.

Importantly, and in favor of the *warmth supremacy prediction*, warmth exerts a significantly stronger effect than competence ($F(1, 10243) = 223.94, p < 0.001$). Moreover, warmth is a significantly

stronger predictor than leadership ($F(1, 10243) = 67.09, p < 0.001$) and integrity ($F(1, 10243) = 236.47, p < 0.001$). Finally, competence is significantly less related to feeling thermometer ratings than leadership ($F(1, 10243) = 54.76, p < 0.001$). In other words, competence and integrity constitute the least important trait dimensions for global candidate evaluations (competence and integrity predict feeling thermometer ratings with equal strength: $F(1, 10243) = 0.28, p = 0.598$). To illustrate the relative predictive power of each of the four traits on global candidate evaluations, Fig. 1 shows the marginal effects for competence, warmth, leadership, and integrity (note that all variables are coded on 0–1 scales to ease interpretations).

Fig. 1 visualizes the relative predictive power of the four different traits on global candidate evaluations. In strong support of the *warmth supremacy prediction*, warmth constitutes the strongest predictor of feeling thermometer ratings compared to the three other traits, and ratings of warmth are more than twice as strongly related to global candidate evaluations than ratings of competence. Specifically, a change in warmth perceptions from “0” (the minimum value) to “1” (the maximum value) corresponds to a change in feeling thermometer ratings of 35 percentage points when the three other traits are included as simultaneous predictors and, thus, controlled for. In comparison, a change in perceived competence from “0” to “1” only yields a change of 13 percentage points on the feeling thermometer. Finally, similar changes in leadership and integrity correspond to changes of 24 and 14 percentage points in global evaluation, respectively.

3.5.2. Vote choice 1984–2008

Next, we test if the same pattern is found when we predict vote choice from trait ratings of candidate competence, warmth, leadership and integrity. Again all four traits are positively related to the dependent variable, vote choice, when entered simultaneously as predictors in a logistic regression ($b_{\text{competence}} = 1.06, p < 0.001$; $b_{\text{warmth}} = 3.16, p < 0.001$; $b_{\text{leadership}} = 2.36, p < 0.001$; $b_{\text{integrity}} = 1.49, p < 0.001$). Model B in Table 2 provides the full model for these results.

Strongly in line with the results presented for global candidate evaluations—and, thus, in further support of the *warmth supremacy prediction*—warmth outperforms competence ($\chi^2 = 39.25, p < 0.001$), leadership ($\chi^2 = 7.62, p = 0.006$) and integrity ($\chi^2 = 28.86, p < 0.001$) in terms of predictive power of respondents' vote choice. In contrast, competence comes out as the trait most weakly related to vote choice, constituting a significantly weaker predictor than leadership ($\chi^2 = 15.13, p < 0.001$) and being indistinguishable from integrity in terms of predictive power ($\chi^2 = 1.80, p = 0.180$). Fig. 2 reports the marginal effects of each of the four

Table 2
American national election study 1984–2008.

Full models for predictions of feeling thermometer ratings (Model A) and vote choice (Model B) from trait ratings of candidate competence, warmth, leadership and integrity. Linear regression is applied for analyses in Model A, while logistic regression is used in Model B. Models employ respondent fixed effects (excluded in the table). Unstandardized coefficients with standard errors in parentheses.

	Model A DV: Feeling thermometer	Model B DV: Vote choice
Competence	0.131*** (0.010)	1.062*** (0.239)
Warmth	0.345*** (0.009)	3.158*** (0.206)
Leadership	0.238*** (0.008)	2.362*** (0.178)
Integrity	0.139*** (0.008)	1.491*** (0.190)
Candidate party		
- Democrat	0.141*** (0.009)	2.424*** (0.192)
Candidate party X resp. party ID		
- Democrat X resp. party ID	−0.340*** (0.009)	−4.190*** (0.172)
Candidate party X election year		
- Democrat X 1984	−0.007 (0.009)	−1.104*** (0.205)
- Democrat X 1988	−0.051*** (0.009)	−0.894*** (0.207)
- Democrat X 1992	0.028** (0.009)	0.130 (0.212)
- Democrat X 1996	0.074*** (0.010)	0.458* (0.227)
- Democrat X 2000	−0.007 (0.010)	−0.496* (0.217)
- Democrat X 2004	−0.003 (0.010)	−0.479 [†] (0.247)
Constant	0.082*** (0.006)	—
N (Observations/respondents)	22,123/11,868	13,128/6564

Note: Trait ratings and feeling thermometer ratings are measured on 0–1 scales with “0” and “1” indicating most negative and most positive rating, respectively. For vote choice “0” and “1” indicate not having voted and having voted for a candidate, respectively. Models are based on respondent fixed effect estimation. Note that for Model A, $N_{\text{observations}}$ does not equal two times $N_{\text{respondents}}$ because some respondents only rated one candidate. However, regression coefficients remain unchanged when respondents who only rated one candidate are excluded. [†] $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. All p-values are reported for two-tailed tests of significance.

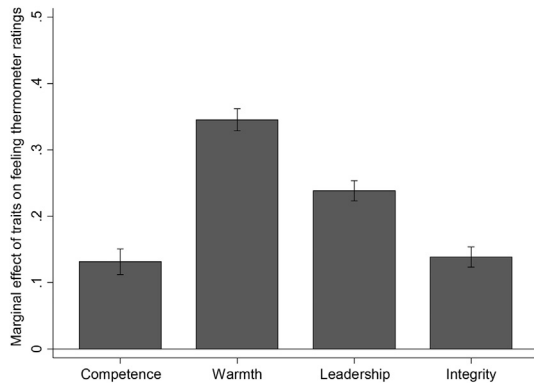


Fig. 1. Marginal effects of competence, warmth, leadership and integrity on global candidate evaluations (feeling thermometer ratings), ANES 1984–2008 (Study 1). Bars are estimated regression coefficients and show changes in global candidate evaluations as a consequence of changing a given trait from 0 to 1. Lines are 95% confidence intervals.

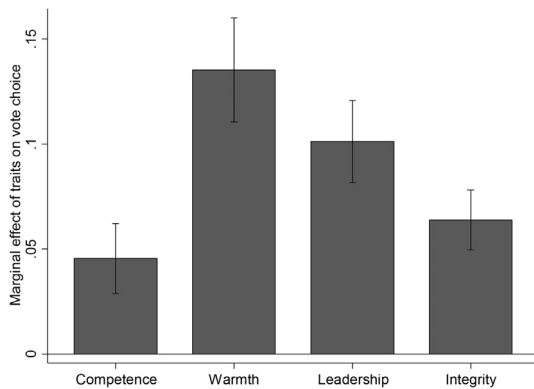


Fig. 2. Marginal effects of competence, warmth, leadership and integrity on vote choice, ANES 1984–2008 (Study 1). Bars show changes in the predicted probability to vote for a candidate as a consequence of changing a given trait from 0 to 1. Lines are 95% confidence intervals.

candidate traits on the predicted probability to vote for the candidate.⁶

Fig. 2 shows that the marginal effect of a change in perceived warmth exhibits a larger increase in the estimated probability to vote for a candidate than similar changes in perceived competence, leadership and integrity. In other words, vote choice decisions are influenced most strongly by perceptions of candidate warmth—providing further support for the *warmth supremacy prediction* and against the *candidate competence prediction*. In terms of substantial size, Fig. 2 shows that a change in perceived warmth of a candidate from “0” to “1” yields an increase of 13.5 percentage points in the estimated probability of voting for the candidate (holding the remaining variables at their observed values; see footnote 6). In comparison, a similar change in perceived competence only corresponds to an increase of 4.5 percentage points in the probability to vote for a candidate. Finally, similar one-unit changes in leadership and integrity yield 10.1 and 6.4 percentage point changes, respectively, in the estimated probability to vote for a candidate.

In sum, across trait ratings from the 1984–2008 ANES data of the two main contenders for the American presidency, warmth

constitutes a stronger predictor of global candidate evaluations and vote choice decisions than competence. Moreover, based on these analyses, warmth is found to be the most influential candidate trait, also outperforming evaluations of leadership and integrity. Below, we present a series of alternative specifications and modelling procedures to investigate the robustness of this aggregate result.

3.6. Robustness analyses and alternative specifications

Below, we report the results from a range of different robustness analyses falling in four different categories. First, we provide a set of alternative modeling procedures to demonstrate that our substantial conclusion is robust against changes in the applied statistical procedures. Second, we disaggregate the analysis and explore if warmth also outperforms competence in separate party-specific and election-specific analyses. Third, we test if the main findings also hold when we change the categorization of trait dimensions from the four separate dimensions of competence, warmth, leadership and integrity to the two “major” dimensions based on composite traits of competence/leadership and warmth/integrity (see section “Different candidate traits: Four- and two-dimensional trait models” above). Finally, we explore if warmth also outperforms competence, leadership and integrity when the applied sample of respondents is restricted to independent voters. Independents are less likely to be guided by party identification in trait evaluations and, arguably, more likely to base their vote choice on unbiased trait perceptions of the candidates (cf. Bartels, 2002).

3.6.1. Alternative modelling procedures

Our main findings are consistent across a number of alternative model specifications. First, one might argue that the four trait dimensions are highly correlated and, consequently, that including all four traits in the same model might bias our estimates. Therefore, we conduct a set of models in which we only include the four traits one at a time (see Supporting Information S.I.3). Second, in the main analyses we recoded each candidate trait to scales from “0” (min. value) to “1” (max. value). Yet, one might argue that if the variances for the four traits differ, comparing marginal effects based on unstandardized coefficients is not meaningful. We therefore rerun our two main models with standardized competence, warmth, leadership and integrity variables, all with a mean of 0 and standard deviation of 1 (see Supporting Information S.I.4). Third, other studies of candidate evaluations and trait-based voting have relied on difference scores rather than the respondent fixed effects procedure applied here (see for instance Hayes, 2005; Bartels, 2002). To make sure that our main results also hold in analyses based on this alternative procedure, we calculate difference scores for each of the four traits and use these variables to predict differences in feeling thermometer ratings and vote choice. Following standard practice (Hayes, 2005; Laustsen, 2016), we add a set of control variables on the respondent level to control for standard respondent level differences that potentially affect the outcome variables (see Supporting Information S.I.5). Fourth, in the main analysis, we take partisan-colored candidate evaluations into account by controlling for the interaction between candidate party and respondent party identification. However, we also conduct an analysis leaving this interaction out of the model (see Supporting Information S.I.6). Importantly, warmth remains the trait most strongly related to global candidate evaluations and vote choice across all alternative models. This provides considerable evidence that our results are not caused by specific choices in the applied modeling procedures.

3.6.2. Party-specific and election-specific analyses

Our main analyses are based on the cumulative ANES data

⁶ Fig. 2 is based on average marginal effects in which the effects of competence, warmth, leadership and integrity, respectively, are estimated using the observed values of the control variables (and the three other trait measures) (see Hanmer and Kalkan, 2013).

across presidential elections from 1984 to 2008. Although aggregate analyses across elections are the natural choice to paint a coherent picture of the relative importance of the four candidate traits over time, they potentially hide important differences between candidates from the two major parties as well as year-to-year differences. We therefore investigate how consistent the aggregate pattern is when it is broken down to candidate party and separate elections. First, we follow [Barker et al. \(2006\)](#) and investigate the importance of competence, warmth, leadership and integrity for Republican and Democratic candidates separately. Most importantly, warmth constitutes a stronger predictor than competence for both Republican and Democratic candidates in relation to feeling thermometer ratings and vote choice. Moreover, warmth comes out as the most influential trait in all analyses except for one (leadership constitutes a marginally stronger predictor of voting for Democratic candidates than warmth) (see [Supporting Information S.I.7](#) for detailed analyses).

Second, we investigate the relative importance of competence, warmth, leadership and integrity for each specific election. These analyses again replicate the pattern from the main analyses: Warmth outperforms competence in every single election for both global candidate evaluations and vote choice. In fact, warmth is consistently the strongest predictor of global evaluations (although not significantly stronger than integrity in 2000 and leadership in 2004). Warmth is also a very strong predictor of vote choice. That said, it is second to leadership in 2008 and due to relatively large confidence intervals, its effect is not significantly larger than some other predictors in several years (see [Supporting Information S.I.8](#) for detailed election-specific analyses). In total, the two sets of more disaggregated analyses yield further support to the *warmth supremacy prediction over the candidate competence prediction*.

3.6.3. Two rather than four trait dimensions

In the analyses conducted so far, we relied on the four-dimensional framework of candidate trait evaluations. Yet, as already mentioned, prominent works suggest that these four dimensions can be aggregated further by lumping competence and leadership, as well as integrity and warmth together ([McAllister, 2016](#); [Ohr and Oscarsson, 2013](#); [Bittner, 2011](#)). Here we do not intend to empirically test whether the two- or the four-dimensional trait model is more accurate. Rather, we want to explore if the results based on four separate traits are confirmed when two composite trait measures are compared. To measure competence/leadership we made a composite scale based on respondents' average ratings of *knowledge*, *intelligence* and *strong leadership* ($r_{\text{inter-trait}}$ between 0.503 and 0.653, $\alpha = 0.790$). Second, warmth/integrity was measured as respondents' average ratings of the three traits *cares about people like you*, *compassion* and *moral* ($r_{\text{inter-trait}}$ between 0.440 and 0.655, $\alpha = 0.767$) (see also [Supporting Information S.I.2](#)). Next, we conducted statistical models identical to the main analyses except that we included the two “major” trait dimensions, competence/leadership and warmth/integrity, rather than the four separate traits. In these analyses, warmth/integrity is more influential than competence/leadership, but only significantly so for predictions of feeling thermometer and not for vote choice (see [Supporting Information S.I.9](#) for full models). That is, warmth-related traits are found to be more influential in evaluations of American presidential candidates than competence-related traits, irrespective of our assumptions of the dimensionality of trait evaluations.

3.6.4. Independent and non-partisan voters

Previous studies have argued that the correlation between perceived personality traits and global evaluations or vote choice is primarily an artefact of partisan bias. People view the candidate of their own party through rose-colored glasses but see the opposition candidates in a much more negative light (e.g. [Bartels,](#)

[2002](#)). Our models have controlled for this tendency by including an interaction between candidate party and respondents' party identification. Yet, if *strong partisans'* trait evaluations are expressions of party loyalty, one might argue that independent and leaning partisan respondents drive most of the effect of trait evaluations on vote. In other words, trait evaluations are more likely to affect voting behavior among non-partisan respondents than among strongly identified partisans. Consequently, as a final robustness check, we restrict our analysis to independent respondents.⁷ Once again, we find strong support for warmth being the most influential trait in predicting both global candidate evaluations and vote choice (see [Supporting Information S.I.10](#) for full models).⁸

In sum, across a range of alternative statistical models, including party- and election-specific analyses, applying a two-dimensional trait typology rather than the standard four-dimensional categorization, and restricting the 1984–2008 ANES sample to only include independent respondents, the same main conclusion is reached: Perceptions of warmth in US presidential candidates are more influential than perceptions of competence and other traits in predicting global candidate evaluations and vote choice. This finding is at odds with the standard notion in the literature that competence is generally the more important trait. Below, we offer some possible explanations for the difference between our and prior results.

3.7. Discussion

Although the results from the closed-ended trait ratings in the ANES 1984–2008 data are very consistent across specifications and robustness tests, the analyses do have a number of limitations that warrant caution. First, since our models are correlational, we cannot make strong claims about causality. In this regard, it is interesting that the two seminal experimental studies of candidate trait evaluations ([Funk, 1996, 1997](#)) support the candidate competence prediction. Second, our data focuses on presidential candidates. Important earlier work has identified competence and integrity as prevailing in the evaluation of Congressional incumbents ([McCurley and Mondak, 1995](#)). Moreover, the candidate competence prediction is (at least) partially built on cross-cultural analyses and investigations ([Bean and Mughan, 1989](#); [Ohr and Oscarsson, 2013](#)). Third and relatedly, our data only consists of evaluations of American presidential candidates. That is, Study 1 has not investigated the relative support for the *warmth supremacy prediction* and the *candidate competence prediction* across different countries and political settings. It is important to note that cross-cultural differences in candidate evaluations have been identified in the literature (e.g. [Rule et al., 2010](#)). To address these different concerns related to the results from Study 1, we conducted Study 2: An experimental study of the relative importance of warmth and competence in fictitious candidates based on a diverse sample of voters in England.

⁷ Specifically, we perform two sets of analyses. The first set includes respondents self-reported as “Independent – Independent” or as “Independent – Democrat” or “Independent – Republican” on the standard ANES party identification variable (VCF0301). The second set includes *only* respondents self-reported as “Independent – Independent”. Warmth comes out as the most important trait in both sets of analyses.

⁸ Relatedly, one could speculate if voters characterized by different degrees of political sophistication rely on the four character traits in different ways. For instance, reliance on candidate competence might increase with voters' political sophistication and knowledge (cf. [Funk, 1997](#); see also [Pierce, 1993](#)). In [Supporting Information S.I.11](#), we test three such potential moderators: education, if the voter has learned about the election by watching TV, and political interest. We find no substantial evidence that sophistication moderates the effects of different traits.

4. Study 2: Experimental evidence from the United Kingdom

To deepen our understanding of candidate trait evaluations and conduct an additional test of the *warmth supremacy prediction* versus the *candidate competence prediction*, we analyze an original survey experiment from a sample of partisan respondents in the United Kingdom.⁹ Importantly, in the experiment, we manipulated both competence- and warmth-related traits of fictitious candidates to allow for a causal test of both the *candidate competence* and the *warmth supremacy predictions*. Moreover, the fictitious candidates depicted in the experiment were described as competing for the nomination as the local party association's parliamentary candidate. Consequently, Study 2 addresses important limitations of Study 1 by testing the relative support for the two predictions in a controlled experimental set-up conducted in a different institutional and cultural setting.

4.1. Data and participants

In total 824 participants were recruited by the YouGov survey and polling agency to participate in an online survey experiment conducted in the beginning of December 2016. The sample is representative of the English population with respect to gender, age and social class but includes only supporters of Labour and the Conservative Party. Independents or supporters of other parties (e.g. the Liberal Democrats) were not included in the sample. Ideally our sample would be broadly representative of the entire population. Yet, for three reasons we do not think that the characteristics of our sample affect the validity of our findings in any systematic way. First, Study 1 revealed that the *warmth supremacy prediction* receives strong support both among partisan and independent respondents (cf. the reported robustness tests). Second, if anything, testing the prediction among partisans constitutes a conservative test. As discussed above, critics of the candidate evaluation literature claim that partisan bias is the main—perhaps sole—driving force of variation in trait evaluations (cf. Bartels, 2002). If this were the case, however, partisan identifiers would be the least likely to distinguish differentially between warmth and competence. Finally, this sample is much more diverse in all aspects except partisanship than frequently used student or online convenience samples. Consequently, the data obtained from this sample of English partisans constitutes a valid point of departure for testing experimentally whether competence-related or warmth-related traits are more influential in candidate evaluations.

4.2. Materials and methods

In the experiment, participants were first asked to read a fictitious yet realistic newspaper article and imagine that it appeared in their local newspaper. The material was modeled on real reports on local “primary” elections, where two candidates from the same party were competing for the nomination as Parliamentary

candidate of the constituency. The description of the first candidate, John Bennett, was manipulated in a 2 (high warmth/low warmth) x 2 (high competence/low competence) between-subjects design.¹⁰ Competence was manipulated with references to John Bennett's profession, his experience in politics and the public's general perception of his policy statements as well thought through or as naïve. Likewise, warmth was manipulated by descriptions of John Bennett's honesty, self-interested behavior, respect for norms and whether he is generally a reputable or controversial person. To increase ecological validity and realism of the experimental materials, each of the four conditions (depicting John Bennett as high/low in competence and as high/low in warmth) also included a second candidate, Stanley Smith. Across all conditions, Stanley Smith was described as average with respect to both warmth and competence and, consequently, provided a point of reference for participants when forming their perception of John Bennett. Finally, the paragraphs characterizing John Bennett with respect to competence and warmth were of equal length ([Supporting Information S.I.12](#) provides the full texts from the experimental conditions).

The descriptions were pre-tested across several rounds of pilot studies to ensure similar levels of variation on competence and warmth for John Bennett. After having read the assigned experimental condition, participants answered manipulation checks by rating both candidates on warmth and competence on a seven-point scale.¹¹ Finally, two different dependent variables were measured. First, subjects indicated their global evaluation of John Bennett on a 1–7 feeling thermometer recoded to the same 0–1 format as applied in Study 1 ($M = 0.51$; $SD = 0.25$). Second, we measured which of the two candidates respondents would prefer to win the nomination. In the fictitious setting of the experiment, the candidate preference question corresponds to vote choice in Study 1.

4.3. Results

The manipulation checks reveal that while both warmth and competence manipulations were successful, there is an imbalance as the perceived difference in warmth ($M_{\text{high.warmth}} = 0.65$, $M_{\text{low.warmth}} = 0.37$, $t = 16.7$, $p < 0.001$) is larger than the perceived difference in competence ($M_{\text{high.competence}} = 0.65$, $M_{\text{low.competence}} = 0.52$, $t = 8.3$, $p < 0.001$). Although not optimal, this is a well-known methodological challenge as competence evaluations tend to show smaller variation even for objectively more extreme phenomena (cf. van Leeuwen et al., 2012). Increasing the strength of incompetence cues in our experiment would cause significant concerns about external validity, as it would be unrealistic to present an extraordinarily incompetent person as a viable candidate running for office. Therefore, in order to conduct an additional test to partially correct for the imbalance, we report results from two sets of analyses. First, we regress each dependent measure on the experimental manipulation of warmth and competence, respectively. Second, we also regress the dependent variables on respondents' standardized perceptions of John Bennett's warmth and competence, respectively (i.e. the manipulation

⁹ The experiment consists of previously unpublished data collected by the researchers to investigate the causal effects of candidate warmth and competence on global evaluations among supporters of the two major British parties, Labour and the Conservatives. Moreover, the experiment was designed to investigate potential differences in the effects of the two character traits depending on partisan lines. In the analyses reported here, we focus on the main effects of warmth and competence, respectively, on global evaluations and vote choice (see also footnote 10).

¹⁰ An additional between-subject manipulation, party (Labour/Conservative), is excluded from the present analysis. We investigated if any of the reported models are affected by this manipulation and found no significant interactions between manipulations of party with conditions varying neither Bennett's competence nor warmth. Full models from these analyses are reported in [Supporting Information S.I.15](#).

¹¹ Rather than rating perceived warmth, participants rated Bennett's trustworthiness, which is a core trait of the warmth dimension. In fact, some researchers prefer to refer to the warmth dimension as the “trustworthiness” dimension. We are therefore confident that this provides an accurate manipulation check. In Study 2, we used seven-point scales to measure perceptions of competence and warmth (rather than the four-point scales used in the ANES) because these scales constitute standard measures from the British Election Studies. For the same reasons, we use the seven-point scale of general feelings towards Bennett (rather than the 0–100 scale used in the ANES).

check variables). This allows us to compare the effects of similar relative differences in respondents' perceptions of warmth and competence, respectively, on the two dependent variables. Below, we report results from linear regressions when we predict feeling thermometer ratings and from logistic regressions when we predict candidate preferences.

First we investigate the relative importance of the warmth and competence conditions on global candidate evaluations. Replicating the pattern from Study 1, warmth has an almost seven times larger effect on feeling thermometer ratings than competence ($b_{\text{warmth}} = 0.22, p < 0.001, b_{\text{competence}} = 0.03, p = 0.061$). Importantly, this difference in effect size is significant ($F(1, 821) = 76.30, p < 0.001$). Furthermore, the difference is larger than what could possibly be explained by the imbalance in perceptions of the warmth and competence manipulations, respectively. Next, as a robustness test we also predict feeling thermometer ratings from the standardized perceptions of warmth and competence, respectively, which yield further support for the *warmth supremacy prediction*: A standard deviation change in perceived trustworthiness leads to more than twice as large shifts in global evaluations than a similar change in perceived competence ($b_{\text{warmth}} = 0.158, p < 0.001, b_{\text{competence}} = 0.056, p < 0.001$; testing difference in effect-size: $F(1, 821) = 63.21, p < 0.001$) (Supporting Information S.I.13 reports the full regression models). Fig. 3 illustrates these results with the effects of the experimental conditions in Panel A and the effects of the standardized perceptions of warmth and competence in Panel B.

Second, we test if this pattern replicates when we predict respondents' preferences for John Bennett over Stanley Smith. In parallel to the results presented above, the effect of warmth on the likelihood to prefer Bennett ($b_{\text{warmth}} = 2.04, p < 0.001$) is much larger than the effect of competence ($b_{\text{competence}} = 0.49, p = 0.002$). This difference is statistically significant ($\chi^2 = 51.58, p < 0.001$). The marginal effect of the warmth manipulation on the predicted probability of preferring Bennett is 46%, which is more than four times larger than the marginal effect of competence, 10%. As for the analyses of global candidate evaluations, the results are substantively similar when we regress the log-likelihood of voting for Bennett on the standardized perceptions of competence and warmth (rather than the experimental conditions). The regression coefficient for warmth is substantially and significantly larger than for competence ($b_{\text{warmth}} = 0.95, p < 0.001, b_{\text{competence}} = 0.23, p = 0.030$; testing difference in effect-size: $\chi^2 = 14.01, p < 0.001$). The change in predicted probability for one standard deviation change of warmth (21%) is more than three times larger than for competence (6%) (Supporting Information S.I.14 reports the full regression models). Fig. 4 illustrates the effects of the experimental conditions on candidate preference in Panel A and the effects of the standardized perceptions of warmth and competence in Panel B.

4.4. Discussion

Study 2 provides important causal evidence in favor of the warmth supremacy prediction, and it complements the results from Study 1 with data from a different cultural and institutional setting. The results unequivocally support that warmth is a more influential trait than competence in global candidate evaluations, and this pattern further holds for candidate preferences. In the analyses, we take into account that respondents perceived the warmth manipulation as somewhat stronger than the competence manipulation. We do so by predicting the dependent measures from respondents' perceptions of the manipulated candidate, John Bennett. Importantly, regardless of whether the experimental conditions or respondents' perceptions of warmth and competence are used to predict the dependent measures, warmth is found to be more important than competence. Yet, the imbalance between the

manipulations of warmth and competence could also be interpreted as a sign of warmth supremacy. Respondents appeared less sensitive to objective signals of incompetence (e.g. low education, no experience in politics) than to accusations of low warmth ("accused of seeking office for personal interest"), suggesting that cues related to warmth are more easily picked up by the voters than cues related to competence. That said, future research might explore the relative effects of different candidate traits further based on similar experiments conducted across a wider range of countries, employing other stimuli materials, and including independents among the respondents. Future studies might also seek to further improve the combination of data sources by triangulating cross-national observational and experimental data rather than—as we do here—rely on observational data from one country and experimental data from another.

5. Conclusions and implications

How do candidates attract voters? Folk wisdom, news reporters and a comprehensive body of research conclude that candidate personalities probably play an important role. More specifically, it is often concluded that competence-related impressions of candidates matter most for global candidate evaluations and vote choice decisions (e.g. McGraw, 2011; Kinder, 1986; McAllister, 2016). In this article, we have built on models of social perceptions from social psychology to challenge the claim that competence is the more important trait in political candidates. Specifically, this literature gives reasons to expect that warmth-related character traits are more important than competence-related traits (e.g. Fiske et al., 2007). Subsequently, we tested whether competence or warmth constitute the more important trait in evaluations of political candidates in two studies. Study 1 analyzed trait ratings of presidential candidates in the ANES 1984–2008 and provided observational support that warmth is more influential than competence, leadership and integrity (two other well-established traits in candidate evaluations) for predictions of global candidate evaluations and vote choice. This result is remarkably robust to a series of alternative specifications, and to the best of our knowledge this constitutes the most comprehensive analysis so far of the relative importance of key character traits in US presidential candidates. Study 2 complements the observational results with parallel findings from a survey experiment conducted among a sample of representative English partisan supporters of Labour or the Conservative Party. Specifically, in Study 2 we manipulate a fictitious candidate's warmth and competence and find support strongly in line with the results obtained from Study 1. In other words, the results from the two studies converge with overwhelming support for warmth being the most important trait in global candidate evaluations. Importantly, the two studies demonstrate that similar results are obtained across observational and experimental data sources, in both the United States and in the United Kingdom and for US presidential candidates as well as for fictitious candidates for the British parliament. In sum, warmth is consistently found to hold primacy in candidate evaluations and vote choice across both studies. Below, we discuss some theoretical and practical implications of this result.

First, like other recent studies on candidate evaluations, our findings underline the value of distinguishing between specific character traits (cf. Funk, 1999). Previous studies show the existence of party-based trait ownerships (Hayes, 2005; Goren, 2007) and that specific traits such as leadership are weighted more heavily in contexts of threat (Merolla & Zechmeister, 2009) and by conservative voters (Laustsen, 2016). Relatedly, we distinguish between main categories of character traits to show that in general, across many elections, warmth predicts global evaluations and vote

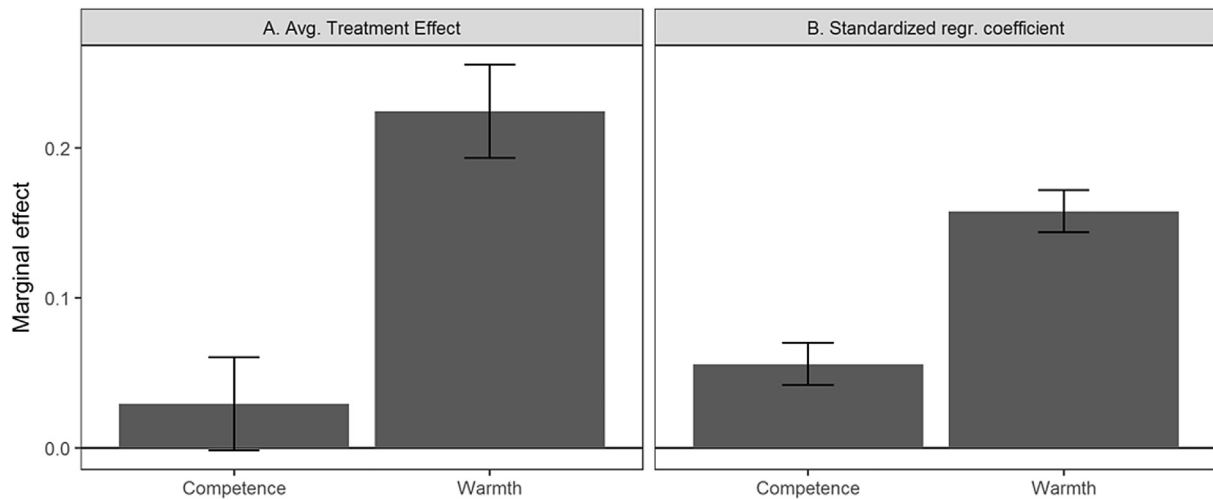


Fig. 3. Marginal effects of competence and warmth on global evaluations of John Bennett (Study 2). Panel A shows the effects of experimental manipulations; panel B shows effects of respondents' perceptions of John Bennett's competence and warmth. Bars are estimated marginal effects and lines are 95% confidence intervals.

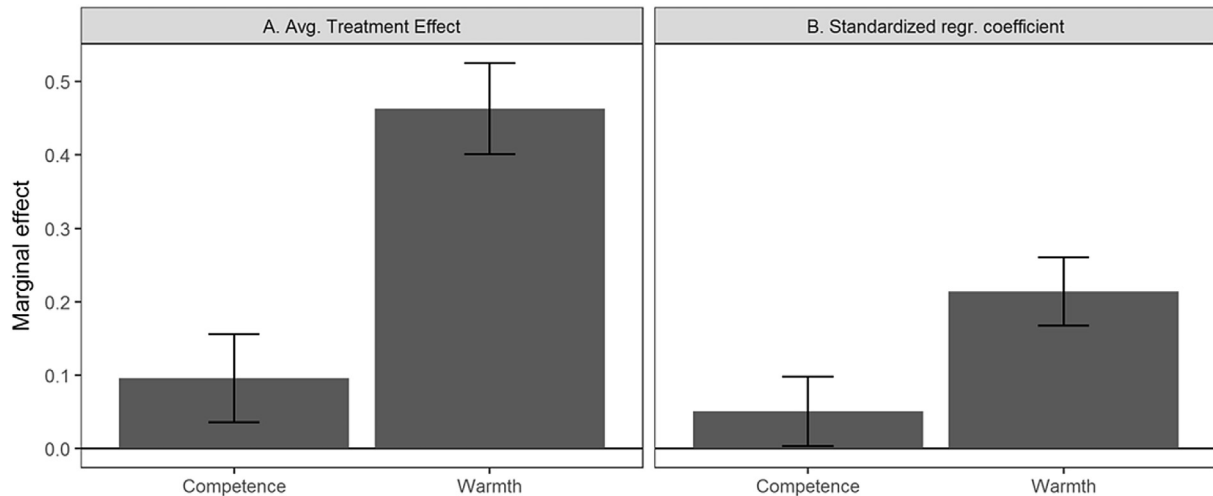


Fig. 4. Marginal effects of competence and warmth on the predicted probability to prefer John Bennett over Stanley Smith (Study 2). Panel A shows effects of experimental manipulations; panel B shows effects of respondents' perceptions of John Bennett's competence and warmth. Bars are estimated marginal effects and lines are 95% confidence intervals.

choice more strongly than other traits. Altogether, this underlines that moving beyond a simplistic one-dimensional approach to candidate character holds potential for further nuancing our understanding of the complicated psychological processes guiding voters' electoral decisions.

Second, interdisciplinary research on leadership provides growing evidence that leader and candidate evaluations utilize different cognitive systems than social or partner evaluations in general (Little et al., 2007; Laustsen and Petersen, 2015, 2017). In particular, contexts of threat and conflict are shown to increase preferences for dominant leaders but not for dominant friends (Laustsen and Petersen, 2015). Interestingly, our results suggest that warmth holds primacy in social perceptions in general *and also* in candidate evaluations. In other words, in contrast to the conflict-sensitive part of candidate evaluations, general social perceptions seem to converge with candidate perceptions—as indicated by the supremacy of warmth—when it comes to general preferences across contexts (Study 1) or situations without any clear contextual information (Study 2). Arguably, because perceptions of warmth

relate to another individual's intentions towards the self (cf. Fiske et al., 2007), ill-intended leaders and ill-intended social partners may impose similar costs on the individual. Consequently, one important direction for future work on character traits in political candidates lies in illuminating *when*, *why* and *how* perceptions of political candidates and leaders differ from social perceptions more generally.¹²

Finally, in terms of practical implications, our results strongly suggest that candidates seeking votes should primarily focus on exhibiting warmth, compassion and caring, while they might be more relaxed about voters' competence, intelligence and knowledge perceptions. In recent American history, George W. Bush's defeat of Al Gore to some degree resonates with our findings given that—on the one hand—Bush's intelligence and competence

¹² In this regard, future research might benefit from investigating how evaluations of candidates across and within party lines might differ. We suspect that data from the nomination stage could constitute a fruitful starting point for such analyses (see also Barker et al., 2006).

and—on the other hand—Gore's likability and warmth were often questioned (e.g., *The Economist*, 2000; Klein, 2013). Likewise, the relatively low effect of competence relates to the recent surge to power of populist outsiders with little previous experience in politics. This is perhaps most clearly demonstrated by Donald Trump's 2016 electoral victory despite the fact that 60 percent of the voters judged him to be unqualified for the presidency in exit polls (Feldman and Herrmann, 2016). It is undoubtedly disturbing for anyone who thinks that elections reflect voters' support for the candidate they see as most fit and competent for the job as political leader that Trump's support apparently suffered little from his widely perceived incompetence.¹³ It is, however, less surprising in the light of our findings. Warmth, it seems, is a much more important trait in political leaders than so far appreciated in studies of electoral behavior.

Appendix A. Supplementary data and analyses

Supplementary data and analyses related to this article can be found at <http://dx.doi.org/10.1016/j.electstud.2017.08.001>.

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¹³ An interesting avenue for future research would be to investigate if increasing concerns about Clinton's warmth further diminished the negative effects of Trump's incompetence.

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