COMMUNICATION & SOCIETY

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All I do is win, no matter what? What matters in gaining electoral support from televised debates

Abstract

How much do the performances of top candidates in televised debates affect vote intentions in parliamentary democracies? The article addresses this question and disentangles the effects of predisposition and performance in televised debate reception. Drawing on a large-N field study of the 2017 chancellor duel in Germany, which contains survey and real-time response data for 5660 participants, we identify debate-induced determinants of shifts in voting intention and assess their relative effect sizes on such changes. Our analysis shows, first, that out-party identification is an effective barrier against shifts in voting intentions. However, we find that viewers' real-time performance perceptions of the candidates show strong effects. Third, we demonstrate that these real-time evaluations can breach the predisposition's barrier particularly when the intensity of out-party identification is less than very strong. Fourth, we find verdicts on the debate winner as an additional short-term factor that can foster shifts in voting intentions in the course of debate reception. Overall, our results indicate that pre-dispositions may hinder rational updating of electoral behaviour but that debate performance can actually make a difference by altering the formation of voting intentions.

Keywords
Real-time response measurement, televised debates, voting intention, motivated reasoning, Federal election Germany.

1. Introduction

Televised debates are considered one of the most important elements of political campaign communication. They attract considerable media, public and academic attention. While political science research has shown that debate reception may have a substantial impact on motivational aspects such as campaign interest and political participation, cognitive variables like political knowledge and efficacy, and candidate-related attitudes such as candidate preference and their images (see for an overview e.g., McKinney & Carlin, 2004; McKinney & Warner, 2013; Benoit *et al.*, 2003), it is highly controversial to what extent televised debates may impact political behaviour in terms of voting intentions. Even though televised debates are a campaign format in which political information is presented in a comparatively balanced way (Warner & McKinney, 2013), biased perceptions of the recipients are considered very likely (Cho & Ha, 2012; Jarman, 2005; Goldberg & Ischen, 2020; Lanoue & Schrott, 1991; Mullinix, 2015; Holbrook, 1996; Schrott & Lanoue, 2013; Warner *et al.*, 2019). Since the

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beginnings of systematic research in political science, studies have emphasized the importance of cognitive consistency, i.e., the endeavour to interpret information in a way that is consistent with pre-existing preferences and biases (Festinger, 1957). The theory of motivated reasoning draws on this consideration and argues that people process balanced and even counter-attitudinal information in ways that maintain and reinforce their pre-existing attitudes (Kunda, 1990). Consequently, shifts in voting intentions are considered very unlikely which challenges their analysis using multivariate statistics. In our study, we address this issue and identify patterns that determine shifts in voting intentions in favour of parties whose candidates are represented in a televised debate. To this end, we draw on a large-N survey and real-time response (RTR) data (N = 5660) that were collected in a field study with a quasi-experimental design on the 2017 chancellor duel Merkel vs. Schulz in Germany.

Our article aims to disentangle the effects of pre-dispositions and performance perceptions in televised debate reception. Thus, our article contributes to the controversy in the literature about whether televised debates are capable of changing voting intentions by both refining existing knowledge and revealing novel insights. First, we show that an out-party identification is a strong barrier against a shift in voting intentions. For the first time in the context of televised debate research, we assess the relative effect sizes of different levels of out-party identity and demonstrate that the stronger the identification, the higher the barrier becomes. Consequently, non-partisans have the least protective shield. Second, we show that viewers' real-time evaluations of candidate statements show strong effects, that is, negative ratings of candidate statements decrease the probability of a shift, while positive evaluations of what candidates say increase the likelihood of a change in voting intentions. More specifically, we find asymmetric effect sizes meaning that the weight of negative ratings for the (non-)change in voting intention is far greater than is true for positive RTR-evaluations. Third, we demonstrate that these real-time evaluations moderate the effect of party identity as interaction terms indicate that negative ratings raise the predisposition's barrier while positive real-time assessments about what candidates say can overcome the hurdle of out-party identification particularly when its intensity is less than very strong. Fourth, we identify changes in the verdict on the debate winner as a further short-term factor that boosts the probability of a shift in voting intentions, as long as the candidate is able to meet the expectations of his debate performance. On the one hand, our results confirm that shifts in voting intentions through debate reception are rare due to the strong barrier of out-party identification, which underlines the need for a large and diverse sample. On the other hand, we show by using multivariate statistics that performance perceptions of candidate statements indeed can overcome this barrier and may increase the likelihood of changes in voting intentions.

The article is structured as follows: In the next section, we reflect on empirical studies that examine the effects of televised debates on vote choice and voting intentions to generate our hypotheses. In section three, we present our data and measures before detailing the results of our empirical analysis in section four. Finally, we discuss the findings from our analysis and reflect on the implications and limitations of our study.

2. Debate Literature and Hypotheses

In this article, we argue that viewers' performance perceptions of the candidates moderate the effect of out-party identity and can indeed break the protective shield of political pre-dispositions, increasing the probability of a change in an individual's voting intention. To develop a clear focus for our investigation within the given scope, we centre our analysis on "winning" shifts towards a candidate's party, i.e., SPD and CDU/CSU, that arise from debate reception. Current research about German politics shows that, although a shift in voting intentions is less restrictive than in the US, it is nevertheless a rather rare phenomenon (Maier & Faas 2011). We contribute to the literature by both refining and revealing new findings by

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gaining from the size and diversity of our sample since our data set allows to study the rare phenomenon of change vs. no change in voting intentions in the course televised debate reception.

Shifts in voting intentions due to televised debates reception are considered to be rare but may considerably affect electoral outcomes particularly when the race between two parties or political camps is close (McKinney & Carlin, 2004). There is a living debate as to whether televised debates and the candidates' performances are capable of changing political behaviour. While some studies emphasize the constraints of debate reception on voting intentions and behaviour (e.g., Goldberg & Ischen, 2020; Schrott & Lanoue, 2013), others report significant effects on the electoral outcome (e.g., Pattie & Johnston, 2011; Lindemann & Stoetzer, 2021; Blais & Perrella, 2008).

A considerable body of literature has dealt with the constraints that prevent changes in political attitudes and voting intentions. In this strand, the concept of motivated reasoning has been established as a theoretical framework. Building on the notion of cognitive consistency (Festinger, 1957), the theory of motivated reasoning claims that people process balanced and even counter-attitudinal information in a manner that adheres to their pre-existing dispositions. More specifically, the theory of motivated reasoning argues that individuals may process political information with directional or accuracy goals (Kunda, 1990). While directional goals encourage partisan interpretations, accuracy goals lead individuals to look beyond partisan cues and evaluate the information in a more objective manner (Druckman, 2012). Empirical research has shown that there is considerable evidence for motivated reasoning guided by directional goals (Bolsen *et al.*, 2014; Kunda 1990; Lodge & Taber, 2013) and that this framework can be readily applied to the context of televised debates (Munro *et al.*, 2002; Jarman, 2016; Mullinix, 2015, Warner *et al.*, 2019). However, accuracy and directional goals may not be exclusive but can coexist (Druckman, 2012). In the process of debate reception, directional goals might fade, and accuracy goals might become more influential when an individual attentively follows candidate statements or encounters counterevidence (Redlawsk, 2002). Thus, other scholars have identified constraints to the theory (Feldman, 2011; Redlawsk *et al.*, 2010; Bolsen *et al.*, 2014; Mullinix, 2015), demonstrating contexts and conditions that can diminish rationalizations by motivated reasoning, which enables a more rational updating of political attitudes and vote intentions.

A unique form of motivated reasoning refers to the concept of party identification. *Partisan* motivated reasoning aims to protect one's own partisan identity (Green *et al.*, 2004; Warner *et al.*, 2019) and "is likely often driven by an individual's desire to be loyal to and consistent with one's own party and maximize differences with the out-party" (Bolson *et al.*, 2014, p. 237). Thus, partisan motivated reasoning is likely to occur if one is concerned that perceived information conforms to one's in-party identity. Research in the context of televised debates shows that party identification not only determines pre-debate political attitudes but also shapes real-time perceptions of the debate and subsequent verdicts about the candidates (Maier *et al.*, 2016; König & Waldvogel, 2021). This partisan filter seems all the more potent the more intense the PID is manifest. However, research has shown that the protective shield of party identification and directional goals can be breached (e.g., Redlawsk *et al.*, 2010). Consequently, any analysis of debate-induced shifts in voting intentions must consider party identification *and* its strength. However, due to missing variance, this is hardly possible with samples of several dozen participants in a laboratory. Yet, those are the studies dominating debate literature. The size and diversity of our sample can improve this situation since we analyse the combined variable of PID and its strength as independent variables. We assume that a stronger out-party identity is an effective guard against a change in voting intentions towards a candidate's party. Conversely, this means that a weak out-party-PID and no partisan social identification increase the likelihood of a shift (H1).

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One may argue that the relation between party ID and voting intention has been advanced for a long time since the seminal work by Campbell *et al.* (1960) in election campaign literature (e.g., Lewis-Beck *et al.*, 2008; Petrocik, 2009). While it seems clear that party identity conditions the likelihood of voting intention change, it is less clear, however, how strong the barrier remains on different levels of party identity strength. How much does the probability of a change in voting intention differ between e.g., weak and strong out-party identification? It is precisely these relative effect sizes that we are interested in (see also König & Waldvogel, 2021). As contributions from electoral studies suggest that the intensity of party identification matters for voter preferences and choices (e.g., Iyengar *et al.*, 2012), we lack empirical evidence on how much divergent degrees of out-party identification matter for gaining shifts in voting intentions in the course of televised debate reception. Thus, although assessing the association between party identity strength and voting intention is not novel given research from other strands of the literature, testing the aforementioned hypothesis on the relative effect of out-party identification on voting intentions in the context of televised debates promises to reveal novel insights.

While the impact of the long-term factor of out-party identification may particularly explain why people would not change their voting intentions, short-term factors such as attitudes towards candidates and issues may provide insights on why individuals may update their voting behaviour due to televised debate reception (see the seminal work by Campbell *et al.*, 1960). However, even short-term factors are subject to the impact of party identification and cognitive filters. In this sense, RTR-based research on televised debates has shown, on the one hand, that participants' real-time ratings of candidate statements are associated with party identification (Maier *et al.*, 2016; Waldvogel & Metz, 2020). On the other hand, there is strong evidence that participants perceive the candidate statements in a sophisticated manner and that the real-time responses additionally explain political verdicts after debate reception. Party identification thus leads individuals to view the debate through their "partisan lens;" however, it does not blind them to perceive and assess the candidates' statements in a deliberative manner. Thus, recent research has emphasized that real-time perception of the debate is a core variable to assess debate reception and its post-debate effects –at least from a short-term perspective (Maier *et al.*, 2016; Waldvogel, 2020). So far, however, there is –to our knowledge– no work that incorporates real-time evaluations and their valence into the modelling of shifts in voting intentions. With the help of the RTR data, we will close this gap and test how much explanatory power RTR-ratings add beyond party identity to our models. We detail our analysis by, instead of using average net evaluations which is common in RTR debate research, disentangling positive from negative evaluations on candidate statements. Thus, we assume that more positive RTR evaluations of a candidate's statements increase the likelihood of voting for his/her party after the debate (H2a), while more negative evaluations reduce this chance (H2b).

Once more, we are particularly interested in the relative effect sizes across positive vs. negative RTR-evaluations of candidate's statements: Do we find symmetric or asymmetric effect sizes, which could e.g., be in line with the notion of negativity biases, meaning that negative evaluations have a larger impact than positive events even if they are formally of equal importance (Knobloch-Westerwick *et al.*, 2017).

Another important question in this regard is whether RTR not only has separate effects but to what extent performance perceptions of candidates in real-time are capable of overcoming or reinforcing existing barriers. To answer this question, one needs to investigate the interaction of PID strength and RTR evaluation. It is reasonable to assume that positive evaluations of candidates' statements in a televised debate may cause individuals to form a coherent voting intention or to reconsider existing out-party affiliations. In short, we assume positive interaction terms, that is, positive evaluations of a candidate's statements are able to breach existing predispositions such as out-party identification, at least if they are not very

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strong (H3a). The reversed pattern is what we expect for negative real-time ratings of candidate statements. Here, we assume negative interaction terms, meaning that negative RTRs further raise the barriers to switching party preference for a candidate, at least for individuals with no or only up to moderate out-party identification, since for these individuals switching voting intention would in principle be an option (H3b).

"Americans tend to remember debates in terms of winners and losers" (Schrott & Lanoue, 2013). While this claim might be true for a bipartisan system such as in the US, research in Germany shows that participation in a debate is not a zero-sum game, but can be beneficial for all candidates, regardless of whether they are considered the overall winner of the debate (e.g., Maier *et al*., 2014). On the other hand, several studies find that the performance of the candidates rather than the sheer exposure is crucial when it comes to shifts in voting intentions (Maier *et al*., 2014; Pattie & Johnston, 2011). These studies have shown that the verdict on a candidate being the winner of the debate can directly increase the probability of voting for that winner by up to 30 to 40 percentage points (Maier & Faas, 2011; Maier *et al*., 2014). Thus, the verdict on the debate winner is an important variable in existing studies about the impact of debate reception on voting intentions (Goldberg & Ischen, 2020). It is plausible to assume that for a shift in voting intentions it is particularly relevant whether a candidate meets or even exceeds expectations or disappoints the audience. We, therefore, assume that when a candidate lives up to expectations of being the debate winner, it is more likely that there will be a shift in voting intentions in favour of the candidate's party (H4).

3. Methods and Measures

3.1. *Device and Data*

To test our hypotheses, we use data from a quasi-experimental field study on the 2017 Chancellor Duel in Germany. The debate took place three weeks before election day on the evening of September 3, 2017. Incumbent Angela Merkel (CDU) and challenger Martin Schulz (SPD) discussed the most important issues in a debate that lasted around 90 minutes and attracted more than 16.5 million viewers broadcasted live on five TV stations. With the help of their own mobile devices, study participants (recruited through extensive media cooperation with the national TV-station Sat1.ProSieben and around 90 newspapers in print and online) were able to voluntarily provide their immediate impressions of the debate in real-time. What is new: The participants could give their impressions in natural reception situations, using the application at home. The graphical user interface of the so-called "Debat-O-Meter" was implemented as a push-button system in reset mode, i.e., participants could rate the candidates with a gradual evaluation from +2 for a very good to -2 for a very bad impression (see Annex A3). The incoming RTR data was immediately time-stamped and stored on a server together with the user pseudonym. The RTR measurement was complemented by a two-wave panel online survey immediately before and after debate reception. Tests of the data set for reliability and validity show that they correspond qualitatively to data from laboratory-based studies (Waldvogel *et al*., 2021).

3.2. *Measures*

Four sets of variables were created from the RTR- and panel survey data: (1) one endogenous variable of shifts in voting intentions; (2) real-time response measures; (3) exogenous variables on party identity and its strength as well as the debate winner from the pre- and/or post-survey; and (4) a set of control variables.

Endogenous variables. In the pre- and post-survey, participants answered the question of which party they intend to vote for if there were federal elections next Sunday. Shifts in voting intentions were measured by comparing the two waves. We calculated our dependent variable

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binary[1]: People who neither before nor after the debate indicated voting intentions for a candidate's party represented in the debate, i.e., Schulz and SPD or Merkel and CDU/CSU, were assigned the value 0. Participants who after debate reception wanted to vote for one of the respective parties, although they had not previously intended to do so, received the value 1. Individuals who indicated that they had already voted were excluded from the analysis.

Looking at the sample's distribution of the endogenous variable's subsets, we can state that a shift in voting intentions is a rather rare phenomenon in our sample. We find 385 individuals switching towards CDU/CSU, while 3864 refused to do so. Regarding shifts towards the SPD, 508 participants indicated to vote for the Social Democrats after the debate, though they did not intend to do so before the debate, while 4204 were not persuaded. Thus, the margins between both candidates and parties are rather balanced; about ten percent of the voters' reservoir experienced a shift in voting intentions in their favour. The numbers and the fact that a shift in voting intentions is comparatively rare, underline the value of having a large and diverse sample of respondents who followed the televised debate and provided RTR measures. Statistical analysis would hardly be tenable with a much smaller sample.

Real-time response measurement. Participants provided feedback about their evaluation of the candidate statements on a five-point scale from –2 (very poor) to + 2 (very good) for both candidates separately in real-time. No input was considered a neutral impression and thus corresponds to the value 0 (in accordance with the participants' instruction, see Annex 3). For our analysis, we calculated four RTR variables that differentiate between both, the valence of the evaluation (positive vs. negative) and the respective candidate (Merkel vs. Schulz). More precisely, we summed up the (absolute) value of positive or negative ratings for a candidate. These scores have been z-standardized, a change in one unit thus represents a change of one standard deviation of the respective variable.[2]

Party identification. PID-measures are based on participants' responses on whether they are attached to any political party and how strong they asses this attachment to be, which respondents could indicate on a five-point scale from "very weak" to "very strong" in the pre-survey. Since our analysis focuses on the restrictive impact of out-party identification and its strength on a change in voting intentions in favour of a candidate's party, all those with party ID for the in-party of a respective candidate are assigned the value 0 (CDU: N=1822; SPD: N=1189). Assuming that the mechanisms of partisan motivated reasoning rather do not apply to people without any party identification and that they, therefore, have the weakest shield against influences for a change, non-partisans get the value 1 (N=1076). To maintain group sizes large enough for use of multivariate statistics, we combined the two lowest categories of PID strength to the value 2 (Non-CDU=123; Non-SPD=138), moderates were assigned to 3 (Non-CDU=1116; Non-SPD=1316) and strong and very strong partisans were given the values 4 (Non-CDU=1074; Non-SPD=1402) and 5 (Non-CDU=332; Non-SPD=413) respectively.

Debate Winner. Participants were asked before the debate which of the two candidates they expected to win the debate and after the reception who they assessed as the winner (options: Merkel, Schulz, tied). By comparing pre- and post-survey, individuals that a

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[1] One may argue that a binary variable is too simplistic, since –for example– participants who switched from either undecided, the SPD or the Greens (or any other party) to CDU all get the same value of 1. In fact, these three shifts might be different things, especially the one from SPD to CDU, that is between the two contenders, compared with the other two. However, although the dataset is very large and heterogeneous, our data do not provide sufficient variation in the change of voting intentions to adopt an even more fine-grained perspective using, for example, ordinal logistic regression. To take up the previous example, there are 221 people who switch from Undecided to CDU/CSU but only 51 participants who choose this path from SPD or Greens (11 people) to CDU/CSU. A complete overview of the switches in voting intentions can be found in Annex A4. These small numbers of cases make it difficult to apply methods of multivariate statistics to very different subgroups. Acknowledging this inherent limitation, we have therefore opted for a binary variable.

[2] Also, the 2.5% most active positive and negative raters have been filtered out of the data as these extreme values may unduly bias the estimates.

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candidate was able to win over were given the value 1 (Merkel: 621; Schulz: 1107), individuals who moved away from a candidate were attributed a value of –1 (Merkel: 939; Schulz: 281) and all other participants were assigned a 0 (Merkel: 4100; Schulz: 4272). This variable was computed separately for both candidates.

Control Variables. Analyses were controlled for age, gender, education and political interest, which were measured in the pre-survey. Age was measured in eleven categories ranging from under 18 to over 70 years. The gender variable is binary. Formal education was measured in six categories reflecting the German educational system. Respondents indicated their level of political interest on a five-point scale from very weak to very strong.

Sample. We acknowledge that the generated sample is not representative of the German population. However, it comes close to the sociodemographic characteristics of debate viewers according to German election data (for details see Annex A1 and A2): Though our sample is biased towards the more educated, younger, male citizens with a higher interest in politics (Annex A1), the data covers a high degree of sociodemographic diversity, which allows for a profound test of our hypotheses. Moreover, it does, unlike previous RTR studies, include respondents from all over the country whose voting intentions correspond quite closely to the distribution in the overall population at the time of the debate (Annex A2). In addition, current research emphasizes that studies based on a non-probability sample can successfully be used to generate valid results, even in cases where the sample differs notably from the total population (Boydstun *et al.*, 2014b; Maier *et al.*, 2014; Maier *et al.*, 2016). Thus, estimates of debate reception require a heterogeneous but not representative sample (Boydstun *et al.*, 2014a). Given the size and heterogeneity of our sample, we are confident that we provide a good panel data basis from a quasi-experimental study design for solid testing of our hypotheses.

4. Results

The results of our regression models are shown in table 1 for both Merkel and Schulz. Since the control variables are not of primary interest but would clutter the table, we hide them in the results table (a complete table is given in Annex 5).

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Table 1. Results from logistic regressions.

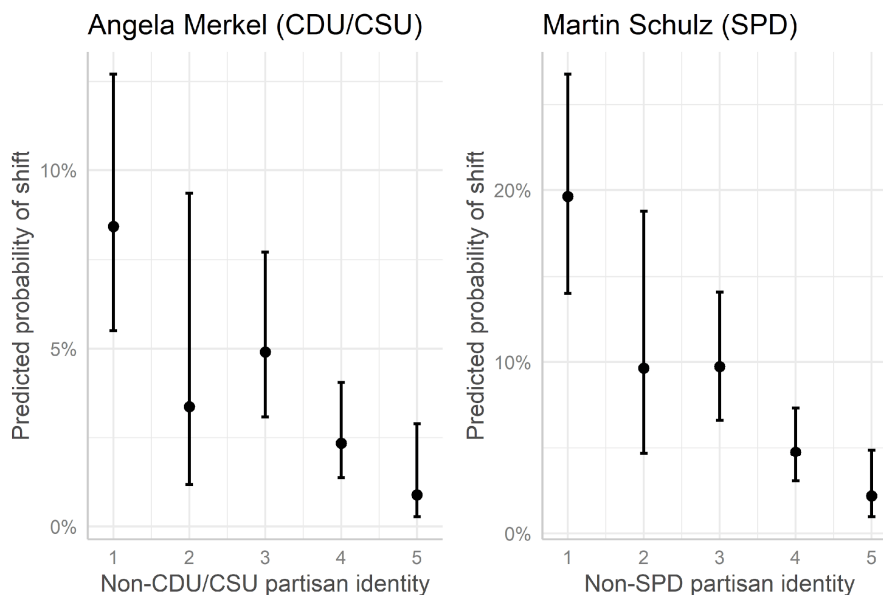|	Merkel 1	Schulz 1	Merkel 2	Schulz 2	Merkel 3	Schulz 3
Intercept	-0,43	-0.91	-1,58	-2,40	-1,48	-2,40
	(0,38)	(0,37)**	(0,43)***	(0,42)***	(0,43)***	(0,43)***
Non-partisan	-1,44	-1,31	-1,05	-0.93	-1,09	-0,96
	(0,15)***	(0,14)***	(0,15)***	(0,15)***	(0,15)***	(0,15)***
Out-party identity very weak or weak	-2,41	-2,14	-1,98	-1,69	-2,05	-1,75
	(0,52)***	(0,36)***	(0,54)***	(0,37)***	(0,55)***	(0,38)***
Out-party identity moderate	-2,02	-2,13	-1,54	-1,67	-1,55	-1,68
	(0,16)***	(0,15)***	(0,17)***	(0,16)***	(0,17)***	(0,16)***
Out-party identity strong	-2,79	-2,90	-2,27	-2,27	-2,27	-2,26
	(0,22)***	(0,18)***	(0,22)***	(0,19)***	(0,23)***	(0,19)***
Out-party identity very strong	-3,78	-3,71	-3,12	-3,12	-3,09	-3,04
	(0,59)***	(0,40)***	(0,61)***	(0,42)***	(0,60)***	(0,42)***
RTR positive			0,98	0,95	0,90	0,86
			(0,09)***	(0,07)***	(0,10)***	(0,07)***
RTR negative			-2,94	-4,93	-2,76	-4,59
			(0,34)***	(0,43)***	(0,34)***	(0,44)***
Debate winner					0,46	0,61
					(0,11)***	(0,11)***
Controls included						
N	3863	4378	3863	4378	3863	4378
Nagelkerkes Pseudo R2	0.21	0.26	0.32	0.38	0.33	0.39

Notes: Party identity strength refers to the strength of identification with a candidate's out-parties or non-partisans respectively. The reference category represents in-party identity of CDU/CSU (Merkel) or SPD (Schulz) respectively. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.
Source: Own elaboration.

Turning first to models 1, we observe a clear effect of out-party identity strength (reference category: in-party identity) with a highly similar pattern for both candidates and parties but more prototypical in the model of Schulz (Social Democrats). An out-party identification provides a significant barrier against a shift of voting intentions towards a candidate's party. The pattern also largely corresponds to our expectations. Candidates are most likely to convince non-partisans to vote for their party. As an individual's identification with an out-party increases, the shield gets stronger. A strong or very strong intensity of identification with an out-party shows the clearest obstructive impact.

To illustrate how substantial the restrictive effect of the different levels of the variable is, we have depicted the marginal effects in Figure 1[3]. As the figure shows, with decreasing out-party identification, the predicted probability for a change in voting intentions in favour of a candidate's party increases. Non-partisans have the highest probability of a change. The graphs also highlight that the probabilities for Schulz are consistently higher. For moderate out-party identifiers, the probability of a change towards the CDU/CSU is below five percent, while it is about double for the SPD; for non-partisans, the probability increases further to above 20 percent, while it is only about a third of that size for the CDU/CSU. These results thus conform to the idea reflected in hypothesis 1 that the strength of party identity is worth to be considered to properly understand how much out-party identity shapes voting intentions in televised debates.

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[3] Variables are set to their means and modes.

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Figure 1. Predicted probabilities for the effect of out-party identity strength.

Notes: Reference category = in-party identity; 1 = non-partisans; 2 = very weak or weak out-party identity; 3 = moderate out-party identity, 4 = strong out-party identity; 5 = very strong out-party identity.
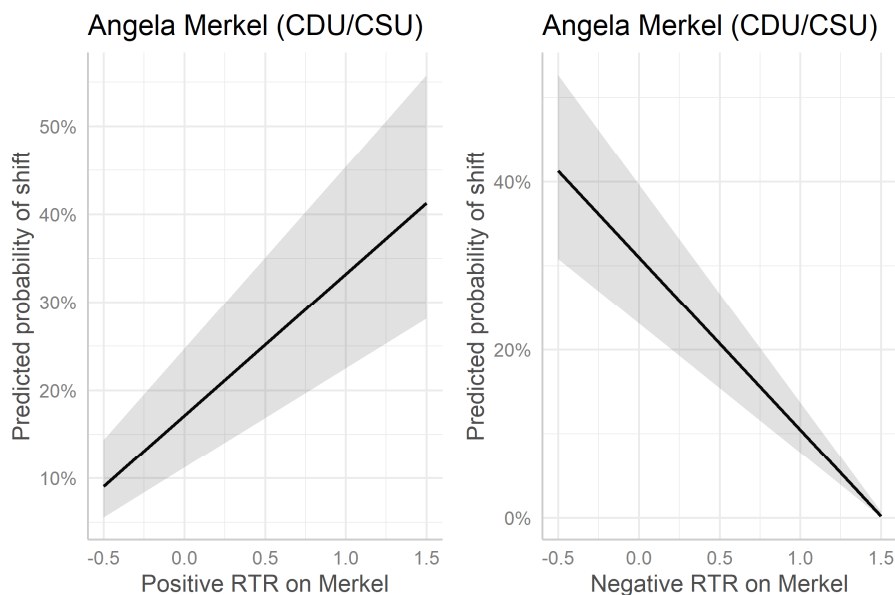
Source: Own elaboration.

The results so far demonstrate that out–party identity is a powerful barrier against shifts in voting intentions towards a candidate's party. In the following, we aim to identify short–term factors, beyond the restrictive influence of the long–term factor of out–party identity, which significantly impacts a shift in voting intentions in favour of the candidates' parties. We begin this part of our analysis by assessing the impact of participants' real–time responses on the candidate statements.

Models 2 in table 1 include the positive and negative RTR evaluations for the respective candidate. The RTR–rating variables are highly significant determinants with effects in the expected directions: Positive evaluations have a beneficial effect, while negative RTR inhibit a shift in voting intentions in favour of a candidate's party. Again, we illustrate predicted probabilities of a shift in voting intentions to assess how much valenced, i.e., positive or negative real–time evaluations of candidate's statements bear on shifts in voting intentions. Figures 2 and 3 show the impact of valenced RTR ratings for Merkel on a change in voting intentions towards the CDU/CSU, respectively for Schulz and the SPD. Keeping other variables at their mean or mode[4], we calculate the predicted probabilities that one gets from varying the candidate ratings by two standard deviations i.e., from –0.5 standard deviation below to 1.5 standard deviations above the mean. This change in predicted probabilities is about 30 percentage points for positive real–time evaluations for both candidates equally. On the other hand, decreasing effects coming from negative ratings on Merkel's statements are about 40 percentage points and about 60 percentage points for evaluations of Schulz, bringing the likelihood of voting intention changes close to zero. As can be glanced from the figures, negative evaluations have a stronger restrictive effect than positive ratings have a stimulating impact on shifts in voting intentions. This quite well conforms to the notion of negativity biases in information processing, meaning that negative evaluations have a larger impact than positive events even if they are formally of equal importance (Knobloch–Westerwick *et al.* 2017). Taken together our findings of this subsection, we thus find clear evidence supporting our hypotheses H2a and H2b.

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[4] Variables are set to their means and modes. Party identity is set to the reference category, i.e., no or other party identity.

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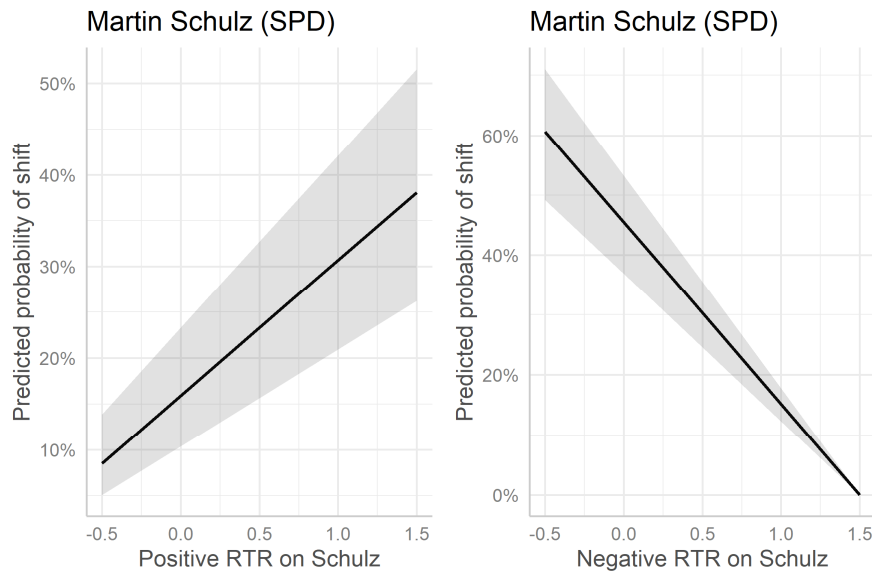**What matters in gaining electoral support from televised debates**

Interestingly, the inclusion of the RTR-variables slightly reduces the impact of out–party identification, which nonetheless remains distinctive and highly significant. This indicates that party identity partly translates into real-time evaluations but that performance perceptions add a considerable portion of explained variance in our models to this core predisposition, which is underscored when we look at the increase of Nagelkerke's pseudo–R^2 between models 1 and 2. Overall, the effects of the RTR-rating variables in models 2 are remarkable considering that these are partial effects from statistically controlling for the effect of out-party identity. It seems that even when controlling for out-party identity and its intensity, the valenced rating on what candidates say in televised debates is important for whether citizens shift their voting intentions. This seems reasonable since party identity offers a good explanation for why respondents do *not* change their minds –it can bring the likelihood of a shift down–, but it can hardly explain *why* people do change their voting intentions. In contrast, the rating items are directly relevant for individuals' updating of voting intentions.

Figure 2. Predicted probabilities for the effect of valenced real-time responses – Merkel.

Notes: Since RTR ratings of -1 standard deviation do not correspond to any real value in our data set, the range of -0.5 to +1.5 SDs is shown in the graph to account for a wide variation of real RTR evaluations in our data.

Source: Own elaboration.

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Figure 3. Predicted probabilities for the effect of valenced real-time responses – Schulz.

Notes: Since RTR ratings of -1 standard deviation do not correspond to any real value in our data set, the range of -0.5 to +1.5 SDs is shown in the graph to account for a wide variation of real RTR evaluations in our data.

Source: Own elaboration.

So far, we have analysed the separate effects of PID strength and valenced RTR evaluations. A crucial question, however, is to what extent PID and RTR interact to determine whether real-time perceptions of candidate statements can indeed overcome or raise the barrier of party identification. To test whether this is the case we have added corresponding interaction terms to models 2. As the complete model would be very cluttered, we show the relevant coefficients of the interactions in table 2 (a full table can be found in Annex A6).

The results are quite clear: Positive RTR evaluations of candidate statements can break the restrictive power of political predispositions unless out–party identity is very strong. This finding is remarkable, as it shows that candidates can indeed persuade individuals to change their voting intention with their statements in televised debates, even if they are strongly associated with another party. These results are consistent for both models Merkel and Schulz. Looking at the interaction of PID and negative ratings of candidate statements in real–time, the pattern is less consistent but evident. Negative RTR boosts the restrictive impact of out–party identity on the likelihood of a change in voting intention. For Schulz, this observation holds not only for non-partisans but also for individuals who have weak to moderate out–party identity. For Merkel, this interaction is significant only for the lowest level of out–party identity. For the widely known chancellor, negative evaluations seem to matter less than this appears to be true for the more unknown challenger Schulz presumably as preformed opinions about the incumbent already leave less room for a change towards her party. Moreover, it seems reasonable that the interaction of negative ratings and stronger out–party identifications remains insignificant in the models since these individuals are already reluctant to change their voting intention even without being reinforced by negative RTR ratings of candidate statements.

Overall, the findings on the interactions of PID strength and RTR indicate that a candidate's statements in a televised debate have a great impact on the chance of a shift in voting intention in favour of his or her party, especially when one considers that these interactions exert major effects on the relevant group of viewers who are less stable in their political attitudes and consequently more open to a change in voting intention. Thus, we find strong evidence that supports our hypotheses 3a and 3b.

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Table 2. Results from logistic regressions with interaction terms of RTR and party ID strength.

	Model Schulz	Model Merkel
Intercept	-1,85	-1,40
	(0,47)***	(0,46)***
Non-partisan	-1,92	-2,16
	(0,43)***	(0,45)***
Out-party identity very weak or weak	-1,11	-2,75
	(0,50)**	(1,36)**
Out-party identity moderate	-2,69	-1,62
	(0,47)***	(0,31)***
Out-party identity strong	-2,86	-2,55
	(0,48)***	(0,41)***
Out-party identity very strong	-3,22	-2,93
	(0,94)***	(0,66)***
RTR positive	0,60	0,50
	(0,14)***	(0,14)***
RTR negative	-3,51	-2,47
	(0,74)***	(0,52)***
Non-partisan x RTR positive	0,45	1,08
	(0,20)**	(0,26)***
Out-party identity very weak or weak x RTR positive	0,62	1,54
	(0,30)**	(0,73)**
Out-party identity moderate x RTR positive	0,45	0,59
	(0,20)**	(0,25)**
Out-party identity strong x RTR positive	0,54	0,87
	(0,22)**	(0,27)***
Out-party identity very strong x RTR positive	0,15	0,08
	(0,38)	(0,78)
Non-partisan x RTR negative	-2,81	-3,17
	(1,18)**	(1,19)***
Out-party identity very weak or weak x RTR negative	-2,94	-2,39
	(1,21)**	(0,84)***
Out-party identity moderate x RTR negative	-2,93	-0,09
	(1,30)**	(0,86)
Out-party identity strong x RTR negative	-1,50	-0,45
	(1,34)	(1,10)
Out-party identity very strong x RTR negative	-0,51	1,27
	(2,75)	(3,81)
N	4378	3863
Nagelkerkes Pseudo R2	0.39	0.34

Notes: All other variables as in models 2 from Table 1 included but not shown. * p < 0.01, ** p < 0.05, *** p < 0.001.

Source: Own elaboration.

Turning to hypothesis 4, we presume that when a candidate lives up to the expectation on being the debate winner, it is more likely that there will be a shift in voting intentions in favour of the candidate's party. As can be seen from our models 3 in Table 1 the coefficients are highly significant, and we thus find strong empirical evidence supporting our hypothesis 4.

Again, we illustrate the marginal effects of the dynamics in the verdict of the debate winner on the probability that an individual switches party preference in favour of a

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candidate[5]. Figure 4 shows these probabilities for the three levels where a candidate disappoints expectations (-1), meets them (0), or even exceeds expectancies (+1). As can be seen from the two graphs, over this range the probability of a change in voting intention in favour of a candidate doubles from under ten percent to around 20 percentage points. This is a remarkable effect, especially considering that we control for the influence of PID strength and RTR ratings in the models. The findings are largely consistent for both candidates.

Figure 4. Predicted probabilities for the effect of changes in the verdicts on the debate winner.
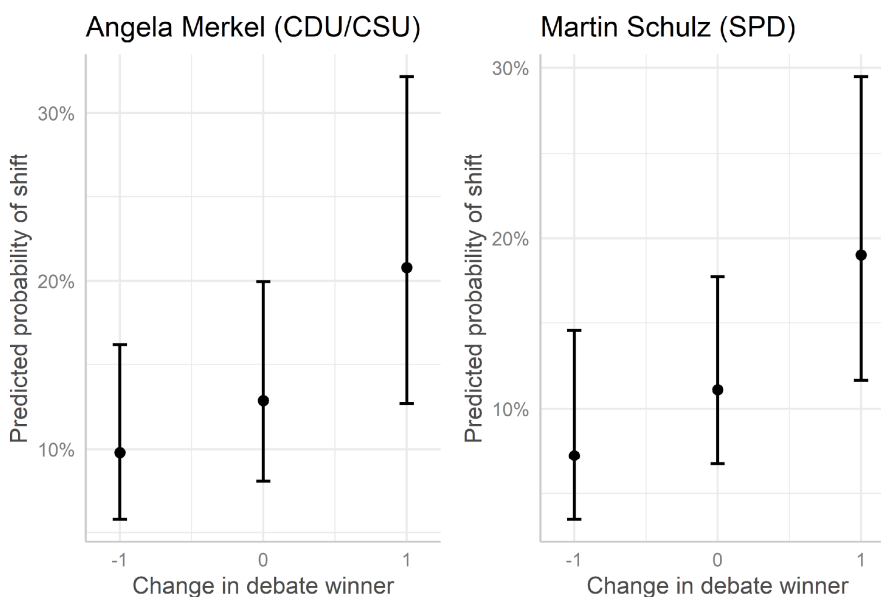
Source: Own elaboration.

5. Discussion and Limitations

Our article contributes to the controversy in debate literature about whether candidates' debate performances indeed can affect voting intention or whether political pre-dispositions shield the audience from being persuaded by candidate statements and thus impedes shifts in voting intensions (e.g., McKinney & Warner, 2013; Warner *et al.*, 2019).

The analysis above adds to this research with evidence from an analysis of large-N data containing real-time response measures from viewers of the main televised debate to the 2017 German national election. The combined RTR measures and panel data allow for looking at processes occurring during the debate. The size and diversity of our dataset has made it possible to examine more in detail central determinants of changes in voting intentions in the course of televised debate reception. As such, our analysis further disentangles the effects of predispositions and performances in televised debate reception on shifts in viewers' voting intentions (Schrott & Lanoue, 2013).

To illustrate the overall impact of the different predictors of our analysis and its relations, we imagine a hypothetical 50-year-old man with a high school diploma, moderate political interest and moderate out-party identification. Furthermore, we assume that the valenced RTR ratings would be in favour of Schulz, i.e., positive ratings for Schulz would be one standard deviation above average. At the same time, negative ratings for the contender would be on average. This hypothetical voter could not identify a winner after the debate. That is why we would predict a probability to shift his voting intentions towards the SPD of 5 percent.

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[5] Variables are set to their means and modes. Party identity is set to the reference category, i.e., no or other party identity.

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However, if this person were to further change his real-time ratings in favour of Schulz, i.e., positive ratings for Schulz would remain one standard deviation above average but negative evaluations would decrease to 0.5 standard deviations below average, the probability would boost to 34 percent. Again, the negativity bias is apparent, meaning that the weight of negative ratings for the change in voting intention is far greater than is true for positive RTR-evaluations. If we then further assumed that the person consequently identifies Schulz as the winner of the duel, although he previously expected a draw, we could expect a change of 48 percent. For Merkel, we would predict a probability of a shift in voting intention towards the CDU/CSU of 38 percent, considering a similar pattern in her favour. Moreover, if the person were not guarded by the protective shield of out-party identification, the value would even increase to 49 percent for Merkel and the CDU/CSU and to 66 percent for Schulz and the Social Democrats respectively. Thus, an out-party identity provides a potentially strong barrier against a gaining shift in voting intentions. However, RTR ratings and verdicts on the debate winner can effectively break through this shield, leading to a considerable chance of shifts in electoral intentions.

On the one hand, our results are in line with cognitive consistency theory (Festinger, 1957) and the framework of partisan motivated reasoning (Kunda, 1990; Warner *et al.*, 2019), that is, out-party identification is an effective barrier to persuasion by candidate statements. We bring further nuance to this insight by considering the strength of this identification and demonstrating that this barrier decreases with declining partisan intensity. Consequently, non-partisans have the highest probability of persuasion. On the other hand, our results conform to the notion that in the process of debate reception, directional goals of partisan motivated reasoning might fade and accuracy goals might become more influential when an individual attentively follows candidate statements (Redlawsk, 2002). This may lead to a more rational than rationalizing process of attitude updating, indicating that candidates' performances in televised debates can affect an individual's voting intentions indeed (Redlawsk *et al.*, 2010).

However, we must also note that the percentage of viewers who changed their voting intentions due to debate reception is rather low at around 10 percent, which emphasizes the need of a large and diverse sample for the use of multivariate statistics. In addition, with our binary dependent variable (change vs. no change) we cannot assess whether there are substantial differences between subgroups and how strong observed changes are; do individuals only form weak voting intentions or is the shift associated with a high degree of certainty in attitude updating? Moreover, we must acknowledge that we are focusing on self-assessed voting intentions, which may differ substantially from actual voting behaviour. Furthermore, our study design does not allow us to determine, how persistent these changes are, considering that debate research has shown that media and interpersonal communication after the debate moderates the impact of reception (Sears & Chaffee, 1979; Lemert *et al.*, 1991; Maier & Faas, 2003). Most recently, research has demonstrated that candidates' valence qualities, such as personal integrity, leadership, and competence may alter support for their party but are not considered in our analysis (Lindemann & Stoetzer, 2021). And lastly, considering the impact of political emotions, future research should investigate more closely how affect does contribute to the formation and updating of voting intentions (Cho & Ha, 2012; Redlawsk *et al.*, 2010, König *et al.*, 2021).

Our analysis provides both, new and existing findings, by highlighting the first and refining the latter. We disentangle the effects of pre-dispositions and performance in debate reception and thus contribute to the controversy in the literature on whether candidates can break through political pre-dispositions with their debate performances. We show that debate performance can actually make a difference and lead to shifts in voting intentions. Although this phenomenon is rare, it is crucial and might substantially change the electoral outcome when the race between political parties or camps is close.

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Online Annex

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Annex A1: Description of the sample and comparison with German election data

	Election study: Pre-election survey	Election panel data: debate viewers	Study Sample
Age			
18-20	5.9%	1.0%	6.8%
21-29	11.5%	7.3%	26.7%
30-39	12.5%	13.1%	22.9%
40-49	13.5%	17.2%	16.5%
50-59	20.8%	22.7%	15.5%
60-69	17.2%	26.8%	8.4%
> 70	18.6%	11.9%	3.2%
N	2179	4073	5476
Gender			
Female	50.2%	43.2%	41.4%
Male	49.8%	56.8%	58.6%
N	2179	4073	5580
Education			
No degree	1.1%	0.6%	0.5%
Still in school	2.1%	0.5%	2.3%
tier secondary school	23.9%	18.6%	6.7%
Mid-tier secondary school	32.9%	36.2%	25.4%
Higher-tier secondary School	40.0%	44.1%	65.1%
N	2165	3330	5648
Political interest			
No interest	9.7%	0.5%	0.3%
Weak	27.5%	2.9%	4.4%
Medium	44.2%	21.6%	30.4%
Strong	14.0%	44.5%	41.9%
Very strong	4.6%	30.5%	23.0%
N	2179	3904	5619

Notes: Election data = German Longitudinal Election Study (GLES) – Pre-election survey (Roßteutscher *et al*. 2017); Campaign panel data = wave 6 from the GLES Election Campaign Panel 2017 (Roßteutscher *et al*. 2019), filtered by those who saw the entire TV debate. Data is unweighted.

The comparison shows that the debate viewers according to the election campaign survey differ from the general population (election survey) through showing a higher ratio of male to female respondents, being more educated and being more politically interested. This is also the case for the sample we use in the study, which is, however, skewed even a bit more toward the higher-educated. The ratio of male to female, distribution over categories of political interest correspond very well to the election campaign data. The only marked deviation is that our study sample clearly contains a greater share of respondents in the age group of 21 to 39 year in relation to people aged 60 and older.

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Annex A2: Assessing the distribution of vote intentions

Vote choice (intention)	Election study: Pre-election survey		Election panel data: debate viewers		Study Sample	
	Frequency	**Share**	**Frequency**	**Share**	**Frequency**	**Share**
CDU/CSU	589	37%	832	27%	1664	35%
SPD	345	22%	757	25%	1324	28%
Left	154	10%	439	14%	311	7%
Green Party	167	10%	204	7%	388	8%
FDP	159	10%	350	11%	666	14%
AfD	116	7%	383	12%	350	7%
Other party	63	4%	114	4%	66	1%

Notes: Based on the same data sources as Annex A1.
Tim   10

Annex A3. Measurement Instructions to the participants
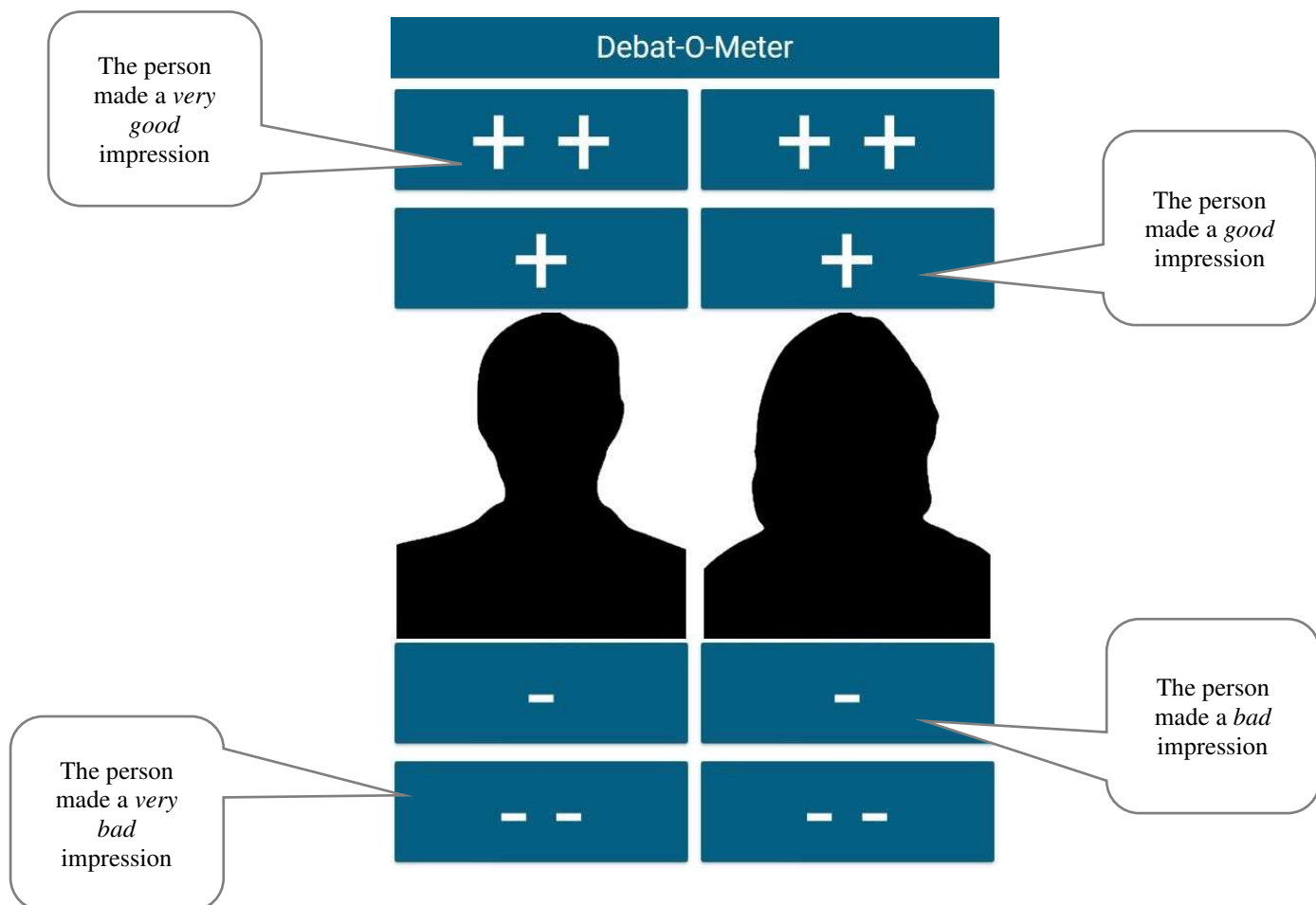
Please note the following:
- The Debat-O-Meter records your ratings exact to the second, which means one rating is recorded per second.
- Why you rate a person and what exactly you consider good or bad is left entirely to you.
- If no button is pressed, no data is transmitted, which will be interpreted as a "neutral" rating.
- Please do not use the device when the host is speaking.

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Annex A4. Overview of changes in voting intentions

	AfD	Other	CDU/CSU	FDP	Greens	Linke	Non-voter	SPD	Undecided
AfD	273	1	11	5	0	4	1	23	21
Other	1	51	2	0	1	4	1	5	11
CDU/CSU	10	0	1274	54	16	3	1	65	58
FDP	5	0	76	541	2	0	1	18	16
Greens	0	0	11	3	300	6	0	39	18
Linke	0	0	6	3	4	253	0	43	24
Non-voter	0	1	7	0	1	2	18	8	3
SPD	7	2	51	8	16	9	0	810	41
Undecided	52	10	221	50	46	29	5	307	538

Notes: First column indicates pre-survey responses and first row post-survey reponses on the question: "If next Sunday were federal elections: Which party would you vote for with your "Zweitstimme"?"

Annex A5. Complete results from logistic regressions

	Merkel 1	Schulz 1	Merkel 2	Schulz 2	Merkel 3	Schulz 3
Intercept	-0,43	-0.91	-1,58	-2,40	-1,48	-2,40
	(0,38)	(0.37)**	(0,43)***	(0,42)***	(0,43)***	(0,43)***
Political interest	-0,10	0,09	-0,06	0,03	-0,07	0,02
	(0,08)	(0,07)	(0,08)	(0,07)	(0,08)	(0,07)
Age < 18	0,76	-0,16	0,64	-0,08	0,68	-0,11
	(0,40)*	(0,44)	(0,42)	(0,46)	(0,42)	(0,46)
Age 21-24	-0,24	0,53	-0,18	0,39	-0,13	0,36
	(0,29)	(0,27)*	(0,30)	(0,29)	(0,31)	(0,29)
Age 25-29	-0,18	0,33	-0,08	0,13	-0,06	0,10
	(0,26)	(0,27)	(0,27)	(0,28)	(0,28)	(0,28)
Age 30-34	-0,37	0,68	-0,20	0,63	-0,18	0,55
	(0,28)	(0,26)***	(0,29)	(0,28)**	(0,29)	(0,28)*
Age 35-39	-0,11	0,25	0,04	0,14	0,08	0,09
	(0,29)	(0,29)	(0,29)	(0,31)	(0,30)	(0,31)
Age 40-44	-0,25	0,33	-0,18	0,24	-0,15	0,14
	(0,32)	(0,30)	(0,33)	(0,32)	(0,33)	(0,32)
Age 45-49	-0,49	0,55	-0,36	0,71	-0,38	0,65
	(0,31)	(0,28)*	(0,33)	(0,31)**	(0,34)	(0,31)**
Age 50-59	-0,10	0,14	0,04	0,23	0,04	0,17
	(0,28)	(0,27)	(0,29)	(0,30)	(0,29)	(0,30)
Age 60-69	0,01	-0,30	-0,11	-0,20	-0,09	-0,30
	(0,32)	(0,33)	(0,34)	(0,36)	(0,34)	(0,36)
Age 70+	-0,21	-0,27	-0,58	-0,15	-0,59	-0,22
	(0,46)	(0,45)	(0,49)	(0,50)	(0,49)	(0,50)
Female	0,30	-0,20	0,16	-0,21	0,16	-0,17
	(0,12)**	(0,11) *	(0,13)	(0,12)*	(0,13)	(0,12)
Education tertiary/university	0,15	-0,33	0,11	-0,18	0,09	-0,18
	(0,16)	(0,14)**	(0,16)	(0,15)	(0,17)	(0,15)
Education mid-tier secondary	-0,01	0,22	-0,10	0,22	-0,10	0,25
	(0,16)	(0,14)	(0,17)	(0,15)	(0,17)	(0,15)*
Education lower secondary	0,29	0,49	0,46	0,41	0,45	0,45
	(0,25)	(0,21)**	(0,26)*	(0,22)*	(0,26)*	(0,22)**
No degree	-0,28	1,17	0,54	0,97	0,43	1,00
	(1,08)	(0,56)**	(1,11)	(0,67)	(1,12)	(0,67)**
Still in school	-0,49	0,24	-0,56	0,13	-0,58	0,11
	(0,48)	(0,48)	(0,50)	(0,51)	(0,50)	(0,51)
Non-partisan	-1,44	-1,31	-1,05	-0.93	-1,09	-0.96
	(0,15)***	(0,14)***	(0,15)***	(0,15)***	(0,15)***	(0,15)***
Out-party identity very weak or weak	-2,41	-2,14	-1,98	-1,69	-2,05	-1,75
	(0,52)***	(0,36)***	(0,54)***	(0,37)***	(0,55)***	(0,38)***
Out-party identity moderate	-2,02	-2,13	-1,54	-1,67	-1,55	-1,68
	(0,16)***	(0,15)***	(0,17)***	(0,16)***	(0,17)***	(0,16)***

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Out-party identity strong	-2,79 (0,22)***	-2,90 (0,18)***	-2,27 (0,22)***	-2,27 (0,19)***	-2,27 (0,23)***	-2,26 (0,19)***
Out-party identity very strong	-3,78 (0,59)***	-3,71 (0,40)***	-3,12 (0,61)***	-3,12 (0,42)***	-3,09 (0,60)***	-3,04 (0,42)***
RTR positive			0,98 (0,09)***	0,95 (0,07)***	0,90 (0,10)***	0,86 (0,07)***
RTR negative			-2,94 (0,34)***	-4,93 (0,43)***	-2,76 (0,34)***	-4,59 (0,44)***
Debate winner					0,46 (0,11)***	0,61 (0,11)***
N	3863	4378	3863	4378	3863	4378
Nagelkerkes Pseudo R^2	0.21	0.26	0.32	0.38	0.33	0.39

* p < 0.01, ** p < 0.05, *** p < 0.001

Annex A6. Complete results from logistic regressions with interaction terms of RTR and party ID strength

	Model Schulz	Model Merkel
Intercept	-1,85 (0,47)***	-1,40 (0,46)***
Political interest	0,03 (0,07)	0,05 (0,09)
Age < 18	-0,12 (0,46)	0,61 (0,42)
Age 21-24	0,37 (0,29)	-0,19 (0,31)
Age 25-29	0,10 (0,29)	-0,11 (0,28)
Age 30-34	0,59 (0,28)**	-0,28 (0,30)
Age 35-39	0,16 (0,31)	0,01 (0,30)
Age 40-44	0,24 (0,32)	-0,25 (0,34)
Age 45-49	0,70 (0,31)**	0,43 (0,34)
Age 50-59	0,20 (0,30)	0,05 (0,30)
Age 60-69	-0,21 (0,35)	-0,17 (0,34)
Age 70+	-0,15 (0,50)	-0,65 (0,48)
Female	-0,22 (0,12) *	0,16 (0,13)
Education tertiary/university	-0,18 (0,15)	0,11 (0,17)
Education mid-tier secondary	0,23 (0,15)	0,13 (0,17)
Education lower secondary	0,43 (0,22)*	0,50 (0,27)*
No degree	1,03 (0,69)	0,68 (1,11)
Still in school	0,12 (0,51)	-0,54 (0,50)
Non-partisan	-1,92 (0,43)***	-2,16 (0,45)***
Out-party identity very weak or weak	-1,11 (0,50)**	-2,75 (1,36)**

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Out-party identity moderate	-2,69 (0,47)***	-1,62 (0,31)***
Out-party identity strong	-2,86 (0,48)***	-2,55 (0,41)***
Out-party identity very strong	-3,22 (0,94)***	-2,93 (0,66)***
RTR positive	0,60 (0,14)***	0,50 (0,14)***
RTR negative	-3,51 (0,74)***	-2,47 (0,52)***
Non-partisan x RTR positive	0,45 (0,20)**	1,08 (0,26)***
Out-party identity very weak or weak x RTR positive	0,62 (0,30)**	1,54 (0,73)**
Out-party identity moderate x RTR positive	0,45 (0,20)**	0,59 (0,25)**
Out-party identity strong x RTR positive	0,54 (0,22)**	0,87 (0,27)***
Out-party identity very strong x RTR positive	0,15 (0,38)	0,08 (0,78)
Non-partisan x RTR negative	-2,81 (1,18)**	-3,17 (1,19)***
Out-party identity very weak or weak x RTR negative	-2,94 (1,21)**	-2,39 (0,84)***
Out-party identity moderate x RTR negative	-2,93 (1,30)**	-0,09 (0,86)
Out-party identity strong x RTR negative	-1,50 (1,34)	-0,45 (1,10)
Out-party identity very strong x RTR negative	-0,51 (2,75)	1,27 (3,81)
N	4378	3863
Nagelkerkes Pseudo R^2	0.39	0.34

* p < 0.01, ** p < 0.05, *** p < 0.001

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