

## Conspiracy beliefs of Italian voters for populist parties: The moderated mediational role of political interest and ideological attitudes

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### ABSTRACT

Grounded in the theoretical framework of the dual-process motivational model of ideology and politics, we investigated the mediational role of RWA and SDO on the relationship between voting for populist parties and conspiracy beliefs; the moderation of political interest was also explored. Collapsing different convenience samples gathered after the European election (2014/2015) and the General National Election (2018/2019) allowed us to analyse two datasets (Study 1,  $n = 4141$ ; Study 2,  $n = 2301$ ). We hypothesised that populist voters would report higher conspiracy beliefs, RWA, and SDO, compared to non-populist voters and abstainers, and that populist voters would report more conspiracy beliefs through indirect pathways running through RWA and SDO. Furthermore, we hypothesised that such direct and indirect associations would be stronger for individuals with high rather than low political interest. Analyses of variance and moderated mediation models mostly confirmed our expectations, although RWA, and not SDO, mediated the relationships in the expected directions.

### 1. Introduction

Believing in conspiracy theories is related to several psychological and behavioural consequences that range in severity from mild to extreme. Previous literature found that believing in conspiracy theories and beliefs affects both individual citizens and society, producing a broad range of social and health problems, including distrust towards scientists and political institutions, social disengagement, hostile inter-group relations, hampering individual and public health (i.e., reducing vaccinations or pro-environmental behaviours) (Bilewicz, Cichocka, & Soral, 2015; Einstein & Glick, 2015; Jolley & Douglas, 2014a, 2014b; Goertzel, 2010; Pellegrini et al., 2021; Van der Linden, 2015; Vecchio et al., 2019).

Recent research and data are consistent with a link between conspiracy beliefs and populist ideologies (Bergmann, 2018; Castanho Silva, Vegetti, & Littvay, 2017; Hameleers, 2020; van Prooijen, Rutjens, & Brandt, 2018). We still know very little about the psychological mechanisms that could explain this relationship, although it might not seem very surprising given the commonalities between the conspiratorial and the populist belief systems, such as a Manichean framework (Douglas,

Sutton, & Cichocka, 2017), or the tendency to find simple explanations for apparently complicated phenomena, as for instance suggesting a unique intentional and malevolent agent behind most unsettling and negative social events (Guan & Yang, 2020).

In order to clarify such relationships, the current research aimed to investigate the mediational role of right-wing authoritarianism (RWA) and social dominance orientation (SDO) on the relationship between voting for Italian populist parties and conspiracy beliefs, grounded in the theoretical framework of the dual-process motivational model of ideology and politics (DPM) (Duckitt & Sibley, 2010; Duckitt & Sibley, 2009). Such a choice can be supported by the evidence several components of DPM may be connected with conspiracy ideation (Bruder, Haffke, Neave, Nouripanah, & Imhoff, 2013; Wood & Gray, 2019). Also, to date there are no studies that have investigated how RWA and SDO might affect the relationship between populist and conspiracy beliefs.

Italy represents a privileged context to study these relationships, considering the political changes that led the two most populist parties (the right wing Lega Nord and the more difficult to categorise Five-Star Movement; FSM) to lead a coalition government from June 2018 to August 2019, implementing a number of populist policies inspired by

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the right wing variety of populism (a crackdown on illegal immigration), as well as by its more or less leftist component (the Five Star Movement), such as a rudimentary basic 'citizenship' income for struggling households.

### 1.1. Populism and conspiracy theories

The two featuring aspects of all populist movements consist in the emphasis on 'the people' as the rightful political agent (i.e. people-centrism), and the strong criticism of 'the elite' (i.e. anti-elitism), variously identified as politicians, scientists, international organisations, multinationals, presumed secret associations, and so on (Hawkins, Read, & Pauwels, 2017; Rooduijn, 2014). However, a core aspect that derives from the contraposition between 'the people' and 'the elite' is the Manichean framework, which polarises and energises populists' opinions about 'the people' (Mudde & Rovira Kaltwasser, 2018), identified with only positive values and scopes, and 'the elite', identified with negative characteristics and driven by crude self-interest alone (Castanho Silva et al., 2017).

Conspiracy theories have aspects in common with populist ideologies. Conspiracy beliefs can be defined as beliefs in the existence of a secret, insidious, preternaturally effective international conspiratorial network designed to perpetrate acts of most fiendish character" (Hofstadter, 1966). A particular aspect of believing in conspiracy theories regards the fact that believing in one specific conspiracy theory is often associated with believing in many others, even when mutually contradictory. On the one hand, such an aspect seems to indicate the existence of a sort of monologic belief system (Goertzel, 1994). On the other hand, other authors argue that different conspiracy theories and beliefs might well cohere partly because of their shared relationship with higher-order beliefs about authority, partly because of their common sensitivity to situational and personality factors, and partly because they are aspects of the same underlying variable (see Sutton & Douglas, 2014, for a review).

This basic belief is also embraced by populist ideology, and there are some scholars who suggest that conspiracy theories find fertile ground where there is much scepticism towards the political class, perceived as disinterested in the people's needs (Doyle, 2011; Fenster, 1999). Politicians of populist parties often use a conspiracy rhetoric in their discourses when referring to their opponents (Hawkins et al., 2017; Vossen, 2010). Some of the very same politicians (mainly, although not exclusively, from right-wing parties) explicitly contribute to the spread of conspiracy beliefs (Betz, 2013; Wysocka, 2013).

Several authors (Enders et al., 2021; Enders & Uscinski, 2021; Uscinski et al., 2021) theorize that anti-establishment sentiments are an important ingredient of support for populist leaders and conspiracy beliefs. This dimension would be orthogonal to the left-right dimension, and it can be activated by partisan politicians. As such, phenomena interpreted as expressions of "far-right" or "far-left" orientations may not be borne of left-right views at all, but rather of the assimilation of anti-establishment sentiments into mainstream politics by elites.

Castanho Silva et al. (2017) argue that populism and conspiracy theories might constitute two separate aspects of the same underlining disposition: the former more related to politics; the latter more related to the society in general. Notwithstanding their commonalities, it should be recalled that the endorsement of conspiracy beliefs is much less frequent than the endorsement of populist beliefs (Oliver & Wood, 2014; Van Hauwaert & Van Kessel, 2018). In other words, not everyone entertaining populist opinions or voting for populist parties believe in conspiracy theories. However, exploring what factors might influence the relationship between populism and conspiracy theories appears crucial to understand the dynamic connection between such momentous belief systems.

### 1.2. The dual-process motivational model of ideology and politics and conspiracy beliefs

The dual-process motivational model (DPM) of ideology and politics (Duckitt & Sibley, 2009; Duckitt & Sibley, 2010) assumes that political ideology is characterised by two psychological tendencies, RWA and SDO, which are thought of as conceptually distinct, although empirically moderately related. As conceptualised by Altemeyer and Altemeyer (1996), RWA represents a reinterpretation of the authoritarian personality construct (Adorno, 1950), being defined as the tendency of people to adhere to the conventional norms of society (conventionalism), to submit themselves to authority and to engage in punitive behaviours that are considered deviant (authoritarian aggression). SDO is defined as the tendency of people to believe that every society must be hierarchically structured, and that unequal positions of power and status contrasting different groups are unavoidable and desirable (Pratto, Sidanius, Stallworth, & Malle, 1994).

The DPM aims to explain the origins of political orientation, tracing it back SDO, RWA and its motivational underpinnings. To put it shortly, some personality traits, together with socialisation processes and exposure to specific environmental contexts, might be at the origin of core 'world views'. On the one hand, a view of the world as dangerous is considered as an antecedent of RWA. On the other hand, a view of the world as a competitive jungle underpins considered SDO. These two different visions of the world could be the basis of motivational purposes and beliefs of RWA and SDO, which in turn could help to explain social attitudes towards several outgroups and political orientations (Duckitt, Wagner, Du Plessis, & Birum, 2002).

The DPM may serve as a tool accounting for conspiratorial thinking because several of its components may be connected with conspiracy ideation. RWA was found to be a significant predictor both of political paranoia and of conspiratorial thinking (Grzesiak-Feldman, 2015). Furthermore, some scholars have speculated that projectivity, i.e. the projecting one's own conspiratorial impulses onto the world at large, is strongly related to the conspiracy mentality, and projectivity is considered a central aspect of the psychodynamic view of the authoritarian personality (Adorno, 1950), from which RWA originates. People with high RWA make excessively frightful inferences from reality (Altemeyer, 1981), and this might make people more prone to build or adhere to conspiracy theories (Abalakina-Paap, Stephan, Craig, & Gregory, 1999). Authoritarian individuals are more likely to be vigilant against threats to the stability of the current social order, which is a common content to many conspiracy beliefs. For this reason, RWA could be a strong predictor of endorsing conspiracy beliefs, especially when ingroup authority seems threatened (Wood & Gray, 2019). However, it must be pointed out that other studies have found founding no association between RWA and conspiracy ideation (Bilewicz, Winiewski, Kofta, & Wójcik, 2013; Grzesiak-Feldman, 2015). Another look at the association is therefore warranted.

Compared with investigations exploring the relationships between RWA and conspiracy beliefs, much less evidence is available for SDO (Grzesiak-Feldman, 2012; Swami, 2012). Conspiracy beliefs might be the consequence of a preference for a hierarchy that stems from concerns that the world is a competitive jungle (Swami, 2012). However, several conspiracy beliefs challenge existing societal power structures because the powers that be are frequently seen as the conspirators. Swami (2012) reported both RWA and SDO are positively correlated to the endorsement of anti-Semitic conspiracy beliefs. Grzesiak-Feldman (2012) reported that people with high right-wing authoritarianism endorsed more conspiracy beliefs, but only if they showed high SDO scores as well. Notwithstanding, weak or non-significant associations between SDO and conspiracy thinking have been reported as well (Imhoff & Bruder, 2014).

Despite the noted empirical inconsistencies, associations of conspiracy beliefs with RWA and SDO appear conceptually sensible, also because many conspiracy theories show a strong political content, which makes it most unlikely that RWA and SDO may turn out to be totally

unrelated to conspiracy ideation, one way or another (Arceneaux & Nicholson, 2012; Bakker, Rooduijn, & Schumacher, 2016). Some contradictory findings might be the result of a different operationalisation of conspiracy indicators. Indeed, there are conspiracy beliefs that could be more suitable to conservative/right-wing worldviews, such as conspiracy theories aimed at privileging minorities (i.e. homosexuals or immigrants), and other conspiracy theories perhaps more appealing for liberals/left-wing voters, such as conspiracy theories aiming to strengthen the hold of privileged groups over disadvantaged groups (Van Prooijen & Van Lange, 2014; Wood & Gray, 2019).

### 1.3. The current study and hypotheses

The present study contributes to the existing literature that has investigated the associations between populism and conspiracy beliefs (Bergmann, 2018; Castanho Silva et al., 2017; Hameleers, 2020; van Prooijen et al., 2018), by exploring the mediational role of RWA and SDO. Also, the moderating role of political interest was tested, as political interest has been shown to moderate the associations of RWA and SDO with socio-political attitudes, political orientation and voting (Carrus, Panno, & Leone, 2018; Leone, Chirumbolo, & Desimoni, 2012; Leone, Desimoni, & Chirumbolo, 2014; Leone, Livi, & Chirumbolo, 2016).

To investigate such relationships, we used data collected on various occasions in Italy after the European Parliament election of 2014 and after the national political election of 2018. Thus, we tested our proposed model on two different datasets (2014/15 and 2018/19). These datasets allowed us to test our predictions on two independent samples of people who voted for different typologies of political elections: European in the former case (Study 1), and in Italy in the latter case (Study 2). These contextual differences should be counted as informative, as the results were fairly stable across political contingencies (different elections) and across time. It is important to clarify that the two most populist Italian parties, Lega and Five-Star Movement (FSM), were two opposition forces of the centre-left government of Matteo Renzi during the data collection of Study 1 (2014/15), while they formed a coalition government after the 2018 general election. The stability, or lack thereof, of the results across our two samples is pertinent to how changes in time, political occasion and the change of majorities affect the web of associations among the measured variables.

We first investigated differences among populist voters (POP), non-populist voters (NOP) and abstainers (ABS) on conspiracy beliefs, RWA, SDO and political interest scores. We expected that POP voters would report higher conspiracy beliefs (Bergmann, 2018; Castanho Silva et al., 2017; Hameleers, 2020; van Prooijen et al., 2018), RWA (Arceneaux & Nicholson, 2012; Bakker et al., 2016), and SDO (Dunn, 2015; Pellegrini, Leone, & Giacomantonio, 2019), compared to the other two groups of voters (NOP and ABS). Regarding differences in political interest differences, it is easy to expect that ABS would report less political interest than the POP and NOP groups. Differences between POP and NOP in political interest were explored in a frankly inductive fashion.

As for expected mediations, we hypothesised firstly that POP voters would report more conspiracy beliefs via higher scores of RWA and SDO (Bruder et al., 2013; Grzesiak-Feldman, 2012). Also, it could be expected that the effect of RWA on conspiracy beliefs would be stronger than the effect of SDO. Such a prediction is supported by the characteristics of people with high RWA, derived from their view of the world as a threatening and dangerous place (Grzesiak-Feldman, 2015; Wood & Gray, 2019), and threat appears one of the motivational underpinnings of conspiracy ideation. High RWA individuals are particularly sensitive to threats at the established social order and they emphasise law and traditional values, which are key elements in jeopardy according to many conspiracy theories (Bilewicz et al., 2015). In comparison, the impact of SDO could be weaker, because the vision of the world that underlies it (i.e., competitive jungle for limited resources) leads people with high SDO to maximise personal utility and to fight for power and

control over others, which are more peripheral aspects of conspiracy beliefs, with its focus on victimisation and loss avoidance (Grzesiak-Feldman, 2012; Swami, 2012).

As for the expected moderations, we anticipated that the direct and indirect associations of POP voters with conspiracy beliefs, RWA and SDO would be stronger for individuals with high political interest, compared to the effects at lower levels of political interest. This anticipation was based on the empirically fairly well-supported notion that individuals interested in politics are more motivated to match their dispositional traits with the best-fitting political affiliation and to approach socio-political matters in a highly ideological perspective (e.g., Carrus et al., 2018; Van Prooijen et al., 2015; Leone et al., 2012, 2014, 2016).

## 2. Study 1

### 2.1. Participants and procedure

The data for Study 1 were obtained from an Italian convenience sample, derived from different data collections ( $n = 7$ ) carried out between the end of 2015 and the end of 2017. Participants were recruited by psychology students, who were told to recruit mainly non-student adult participants, in exchange for course credits. Students had a link to the online questionnaire on Qualtrics and sent it to the participants, who could fill it out from an electronic device at home. All data collections provided informed consent to sign before starting the questionnaire. The studies adhered to the latest version of Declaration of Helsinki revised in Fortaleza and was approved by the Research Ethics Committee of the Department of Social and Developmental Psychology of XXX (removed for blind revision). The final dataset consisted of 4141 participants: males = 1787; 42%, females = 2354; 58%;  $M$  age = 34.44 years ( $SD = 13.41$  years; range, 18–82 years; Table 1). In terms of education, 23.0% had attained a middle school diploma at most, 35.1% a high school diploma, and 41.9% had a bachelor's degree at least. Although all participants were invited to respond if they voted in the 2014 European elections, indicating in case the exact party they voted for, for our research objectives, we divided the participants into three categories (see Measures): Abstainers (ABS;  $n = 1192$ ; 28.78%), voters from populist parties (POP;  $n = 850$ ; 20.53%) and non-populist party voters (NOP;  $n = 2099$ ; 50.69%). Measures tapped conspiracy ideation and referred also to respondents' voting in the European Parliament election of May 2014. Other measures were included in the different samples; as a consequence,  $N$ s for different analyses may vary. For instance, only 1256 respondents shared the measures needed to test for moderated mediation models (i.e. vote in the 2014 European Election; conspiracy beliefs, social dominance orientation, right-wing-authoritarianism and political interest).

### 2.2. Measures

#### 2.2.1. Vote in the European election of 2014

Participants indicated the party they voted for in the 2014 European Election, selecting among: 1) Democratic Party (PD); 2) Five Stars Movement (FSM); 3) Lega Nord (LN); 4) Forza Italia (FI); 5) Fratelli d'Italia (FdI); 6) Lista Tsypiras (LT); 7) I did not vote; 8) I voted for other parties. In Italy, M5S and LN are considered the main populist parties, although they have relevant differences in their political programs (Bordignon & Ceccarini, 2015; Ivaldi, Lanzone, & Woods, 2017; Mosca & Tronconi, 2019; Passarelli & Tuorto, 2018). Thus, regarding the aims of the current and subsequent studies, we categorised this variable forming three groups of participants: 1) voters of FSM and LN were coded as voters for populist parties (POP); 2) voters of centre-left (PD and LT), of central-right (FI and FdI), and of other parties were coded as voters for non-populist parties (NOP); 3) non-voters were coded as abstainers (ABS). Despite their differences, and besides sharing clear populist features, collapsing together LN and FSM seemed sensible given

**Table 1**  
Correlations and descriptive of the variables investigated (Study 1).

	1	2	3	4	5	6	7
1. Conspiracy beliefs	1						
2. Gender	0.05*	1					
3. Age	-0.02	-0.07*	1				
4. Education	-0.15*	0.09*	-0.08*	1			
5. SDO	0.11*	-0.13*	-0.18*	0.07*	1		
6. RWA	0.25*	-0.04	0.03	-0.24*	0.27*	1	
7. Political interest	-0.13*	-0.18*	0.11*	0.18*	-0.08*	-0.21*	1
N	4141	4141	4141	4141	2314	1256	3083
M	2.66	-	34.44	-	2.56	3.26	2.57
SD	0.76	-	13.41	-	0.97	1.10	0.77
$\alpha$	0.89	-	-	-	0.82	0.84	-
Kurtosis	-0.16	-	-0.43	-	0.43	-0.37	-0.43
Skewness	-0.02	-	0.79	-	-0.09	0.18	0.06

Gender was coded as follows: 1 = Males; 2 = Females.

SDO = Social Dominance Orientation; RWA = Right-Wing Authoritarianism.

\*  $p < .01$  for all significant correlations.

that the two parties eventually (2018) formed a coalition government a few years after data for Study 1 were collected.

### 2.2.2. Interest in politics

We measured interest in politics by a single item: 'You consider yourself interested in politics...'. Participants responded on a four-point Likert scale (from 1 = *not at all*, to 4 = *very much*).

### 2.2.3. Social dominance orientation (SDO)

Participants answered to an eight-item (An example item was: 'It is right that some social groups occupy more relevant positions than others') scale of SDO (Pratto et al., 1994). Respondents were asked to assess their level of agreement for each statement on a seven-point Likert scale ranging from 1 = *totally disagree* to 7 = *totally agree*. Items were averaged after the needed reversals, such that higher scores reflect higher SDO levels ( $\alpha = 0.82$ ).

### 2.2.4. Right wing authoritarianism (RWA)

We used a 14-item scale (An example item was: 'What our country really needs instead of more 'civil rights' is a good stiff dose of law and order') to investigate participants' RWA (Altemeyer & Altemeyer, 1996). Participants declared their agreement for each statement on a seven-point Likert scale ranging from 1 = *totally disagree* to 7 = *totally agree*. Items were averaged after the needed reversals; higher scores reflected higher RWA levels.

### 2.2.5. Conspiracy beliefs

To investigate participants' conspiracy beliefs, they completed a 13-item scale of conspiracy beliefs about several topics such as economic crises, vaccines, terrorist attacks, etc. (Pellegrini et al., 2019). Several items were adapted from other measures (Mancosu, Vassallo, & Vezzoni, 2017; Swami, Weis, Lay, Barron, & Furnham, 2016). The scale also includes a fictitious conspiracy belief to tap into the 'monological' processes that suggests a conspiratorial ideation as evidence for other conspiracy beliefs (Swami et al., 2011). Participants declared their agreement for each statement on a five-point Likert scale ranging from 1 = *totally disagree* to 5 = *totally agree*. The scale was already used in previous studies (Leone, Giacomantonio, & Lauriola, 2019; Leone, Giacomantonio, Williams, & Michetti, 2018). With the data at hand, the score showed good internal consistency (Cronbach's alpha = 0.89). Example items were: 'Vaccines are useless and harmful, they are administered only to further the interests of pharmaceutical companies' or 'The so-called ISIS (Islamic State) does not exist, but is only a creation of the Western secret services.'

### 2.3. Analysis plan

Firstly, we ran descriptive and correlation analyses, to explore the relationships among our variables and checked the assumptions of normality and multicollinearity. Normality thresholds were defined as follows: lower than 3 and lower than 8 for skewness and kurtosis, respectively (Kline, 2015). Furthermore, a maximum correlation value of  $|0.80|$  was considered an indicator of absence of multicollinearity (Field, 2009).

Subsequently, we conducted analyses of variance (ANOVA) to test differences among POP, NOP and ABS groups in the scores of RWA, SDO, political interest and conspiracy beliefs. To verify that the differences were in the expected direction, we ran a pair-wise comparison analysis adopting Bonferroni correction. Both preliminary analyses and ANOVAs were run using the Statistical Package for the Social Science (SPSS, v. 25).

Finally, our moderated mediation model was tested using the model n. 59 of the SPSS macro PROCESS (Hayes, 2013), setting 5000 bootstrap samples and 95% confidence intervals. Such a model tested our predictions that RWA and SDO would mediate the relationships between the vote to the European Election and the conspiracy beliefs. The model also allowed for testing for the moderating role of political interest on both direct and mediated relationships between participants' vote to the European election and their conspiracy beliefs, RWA and SDO.

### 2.4. Results

#### 2.4.1. Descriptive and correlation analyses

The results showed that multicollinearity was not an issue (Field, 2009) and that skewness and kurtosis values indicate that the assumptions of normality were met (Kline, 2015) (See Table 1). Conspiracy beliefs were positively associated, although weakly, with SDO, with RWA relatively more strongly, and with political interest, again with a small coefficient. These preliminary results seem to suggest that people with high SDO and RWA levels were more likely to report conspiracy beliefs, whereas people with high interest in politics would be less likely to report conspiracy beliefs compared to people with low interest in politics. Magnitudes were nonetheless moderate to low.

#### 2.4.2. ANOVA on conspiracy beliefs, SDO, RWA and political interest

An ANOVA tested mean differences across abstainers, populists and non-populists. Vote explained a significant proportion of variance in conspiracy beliefs, in RWA and in SDO. Descriptive statistics by group and ANOVA results are reported in Table 2 and relative notes.

Pair-wise analyses adopting Bonferroni correction were run to test mean differences among the groups and the effect size (Cohen's  $d$ ) for

**Table 2**  
Mean differences on conspiracy beliefs, RWA, SDO and political interest by the vote to the 2014 European Election (Study 1).

	Vote	N	M	SD	ES	CI <sub>95%</sub> LLCI	CI <sub>95%</sub> ULCI
Conspiracy beliefs	NOP	2099	2.54	0.74	0.02	2.51	2.57
	ABS (a)	1192	2.68	0.75	0.02	2.64	2.73
	POP (b)	850	2.93	0.77	0.03	2.88	2.98
	Total	4141	2.66	0.76	0.01	2.64	2.69
RWA	NOP	668	3.17	1.10	0.04	3.09	3.25
	ABS (a)	319	3.30	1.10	0.06	3.18	3.42
	POP (b)	269	3.46	1.08	0.07	3.33	3.59
	Total	1256	3.26	1.10	0.03	3.20	3.32
SDO	NOP	1133	2.48	0.97	0.03	2.43	2.54
	ABS (a)	713	2.67	0.97	0.04	2.60	2.74
	POP (a, b)	468	2.59	0.98	0.05	2.51	2.68
	Total	2314	2.56	0.97	0.02	2.52	2.60
Political interest	NOP	1634	2.71	0.75	0.02	2.67	2.74
	ABS (a)	798	2.35	0.79	0.03	2.30	2.41
	POP (b)	651	2.52	0.72	0.03	2.46	2.57
	Total	3083	2.57	0.77	0.01	2.55	2.60

Note. Significant differences are indicated by different letters. POP = Vote for populist parties; NOP = Vote for non-populist parties; ABS = abstainers; ANOVA results: The vote to the European election explained a significant proportion of variance in conspiracy beliefs,  $F(2,4138) = 82.86, p < .001, \eta_p^2 = 0.04$ , in right-wing authoritarianism (RWA),  $F(2,1253) = 6.83, p = .001, \eta_p^2 = 0.01$ , in social dominance orientation (SDO),  $F(2,2311) = 8.43, p < .001, \eta_p^2 = 0.01$ , and in political interest,  $F(2,3080) = 60.02, p < .001, \eta_p^2 = 0.04$ .

each difference was computed by adjusting the calculation of the pooled standard deviation with weights for the sample sizes. Analyses confirmed that voters to populist parties (POP) reported more conspiracy beliefs compared both to voters to non-populist parties (NOP),  $d = 0.521, CI_{95\%} = 0.440, 0.602$  and to abstainers (ABS),  $d = 0.330, CI_{95\%} = 0.241, 0.418$ , in line with our expectations. The POP group higher reported also RWA than the NOP group,  $d = 0.262, CI_{95\%} = 0.012, 0.404$ , but not the ABS group,  $d = 0.143, CI_{95\%} = -0.019, 0.305$ . Contrary to our prediction, the mean for SDO in POP individuals was similar to that computed for NOP individuals,  $d = 113, CI_{95\%} = 0.006, 0.221$ , and for ABS respondents,  $d = 0.079, CI_{95\%} = -0.038, 0.196$ . Finally, the mean interest in politics for the POP group was lower compared to the NOP group,  $d = 0.256, CI_{95\%} = 0.165, 0.347$ , but higher compared with ABS,  $d = 0.472, CI_{95\%} = 0.386, 0.557$ .

2.4.3. Moderated mediation model

Two dummies were computed for the three group categories of voters: X1: NOP = 0, ABS = 1, POP = 0; X2 = NOP = 0, ABS = 0, POP = 1 (See Table 3). These dummies define NOP as the reference group and allowed us to test the differences between POP and NOP voters and, less importantly considered our focus, ABS and NOP voters, on the direct and mediated relationships on conspiracy beliefs (dependent variable). SDO and RWA were modelled as mediators, whereas political interest served as a moderator. Gender, age and education were used as covariates (See Fig. 1).

As expected, POP voters, compared to NOP voters, reported higher conspiracy beliefs,  $B = 0.30, SE = 0.05, \beta = 0.39, t = 5.55, p < .001, CI_{95\%} = 0.191, 0.400$ . This effect was still significant after the mediators

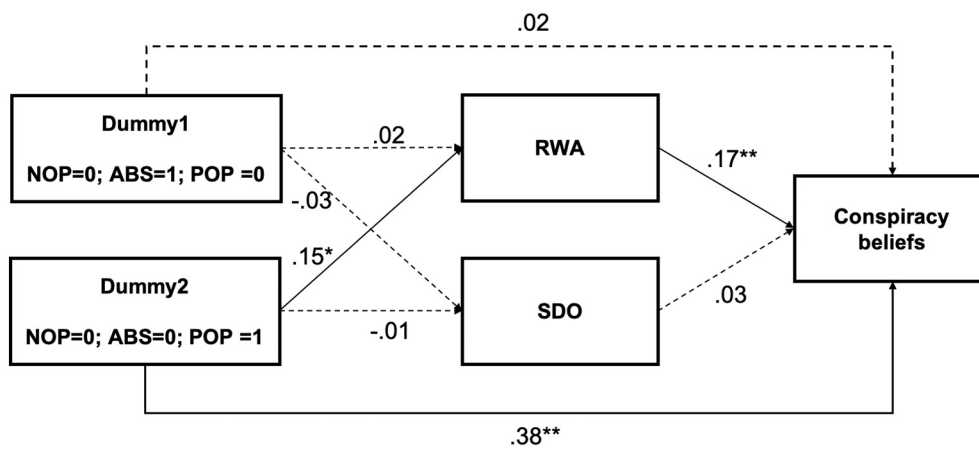
**Table 3**  
Regressions of the moderated mediation model (Study 1,  $n = 1256$ ).

	B	SE	t	p	CI <sub>95%</sub> LLCI	CI <sub>95%</sub> ULCI
Outcome: RWA						
Constant	0.87	0.19	4.52	<0.001	0.494	1.250
Dummy1	0.02	0.08	0.31	0.755	-0.128	0.176
Dummy2	0.16	0.08	2.05	0.040	0.007	0.312
Political interest	-0.36	0.06	-6.43	<0.001	-0.468	-0.249
Int1	0.19	0.09	2.05	0.041	0.008	0.367
Int2	0.21	0.11	1.95	0.051	-0.001	0.419
Outcome: SDO						
Constant	0.73	0.19	3.77	<0.001	0.348	1.103
Dummy1	-0.03	0.08	-0.39	0.695	-0.182	0.121
Dummy2	-0.01	0.08	-0.12	0.908	-0.161	0.143
Political interest	-0.25	0.06	-4.49	<0.001	-0.360	-0.141
Int1	0.28	0.09	3.06	0.002	0.101	0.460
Int2	0.14	0.11	1.35	0.177	-0.066	0.354
Outcome: conspiracy beliefs						
Constant	2.79	0.13	21.33	<0.001	2.532	3.05
Dummy1	0.02	0.05	0.34	0.732	-0.084	0.120
Dummy2	0.29	0.05	5.57	<0.001	0.189	0.394
RWA	0.12	0.02	6.04	<0.001	0.081	0.159
SDO	0.02	0.02	1.16	0.247	-0.016	0.062
Political interest	-0.10	0.04	-2.63	0.009	-0.176	-0.026
Int1	-0.05	0.06	-0.78	0.436	-0.169	0.073
Int2	0.24	0.07	3.29	0.001	0.096	0.380
Int3	0.03	0.03	1.05	0.294	-0.023	0.076
Int4	0.02	0.02	0.83	0.408	-0.028	0.068

Note. Gender, Age and Education were added as covariates. Their effect on the outcomes were removed for clarity reasons. RWA = Right-Wing Authoritarianism; SDO = Social Dominance Orientation; Dummy 1: NOP = 0; ABS = 1; POP = 0; Dummy 2: NOP = 0; ABS = 0; POP = 1. Int1 = Dummy1 x Political Interest; Int2 = Dummy2 x Political Interest; Int3 = RWA x Political Interest; Int4 = SDO x Political Interest; RWA Model:  $R^2 = 10.15\%, F(8,1247) = 17.60, p < .001$ ; SDO Model:  $R^2 = 4.97\%, F(8,1247) = 8.16, p < .001$ ; Conspiracy beliefs Model:  $R^2 = 12.87\%, F(12,1243) = 15.30, p < .001$ .

were considered in the model,  $B = 0.29, SE = 0.05, \beta = 0.37, t = 5.57, p < .001, CI_{95\%} = 0.189, 0.394$ . Significant mediation was found through RWA,  $B = 0.02, SE = 0.01, \beta = 0.03, CI_{95\%} = 0.001, 0.056$ , but not through SDO,  $B < 0.01, SE < 0.01, \beta < 0.01, CI_{95\%} = -0.007, 0.007$ . POP voters were more likely to report higher RWA than NOP voters,  $B = 0.16, SE = 0.08, \beta = 0.15, t = 2.05, p = .040, CI_{95\%} = 0.007, 0.312$ , and higher RWA was associated to higher conspiracy beliefs,  $B = 0.12, SE = 0.02, \beta = 0.17, t = 6.04, p < .001, CI_{95\%} = 0.081, 0.159$ .

Furthermore, political interest moderated the direct association of POP voters (versus NOP voters) with conspiracy beliefs,  $B = 0.24, SE = 0.07, \beta = 0.24, t = 3.29, p = .001, CI_{95\%} = 0.096, 0.380$ , but not with SDO,  $B = 0.14, SE = 0.11, \beta = 0.11, t = 1.35, p = .177, CI_{95\%} = -0.066, 0.354$ , nor with RWA,  $B = 0.21, SE = 0.11, \beta = 0.15, t = 1.95, p = .051, CI_{95\%} = -0.001, 0.419$ , although the latter coefficient approached the significance threshold. Political interest also moderated the indirect association of POP voters on conspiracy beliefs via RWA,  $B = 0.02, SE = 0.01, \beta = 0.03, CI_{95\%} = 0.001, 0.040$ , but not via SDO,  $B < 0.01, SE < 0.01, \beta < 0.01, CI_{95\%} = -0.006, 0.005$ . The two significant interactions reveal that both the direct associations of POP voters with conspiracy beliefs and RWA, and the mediated association of POP voters with conspiracy beliefs via RWA grow stronger for higher levels of political interest. The direct effect of POP voters on conspiracy beliefs was significant for high and average levels on political interest, but not for low levels of interest (Table 4). Similarly, the direct effect of POP voters on RWA was significant for high and average levels of political interest, but not for low levels of interest. Finally, the indirect effect of POP voters on conspiracy beliefs by RWA was significant for high and average levels of



**Fig. 1.** Graphic Representation of the Model tested in Study 1 ( $n = 1256$ ). Notes. Standardized coefficients are reported. Gender, Age and Education were added as covariates. RWA = Right-Wing Authoritarianism; SDO = Social Dominance Orientation; the moderator ‘Political interest’ and its numerous effects were not included for clarity reasons of the picture. The direct and interacting effects of Political interest on RWA, SDO, and Conspiracy beliefs are reported in Table 3.

**Table 4**  
Effects of POP of voters by political interest levels (Study 1,  $n = 1256$ ).

	B	$\beta$	SE	t	p	CI <sub>95%</sub> LLCI	CI <sub>95%</sub> ULCI
POP → conspiracy beliefs							
High political interest	0.47	0.62	0.08	6.00	<0.001	0.318	0.626
Average political interest	0.29	0.38	0.05	5.57	<0.001	0.189	0.394
Low political interest	0.11	0.14	0.17	1.51	0.131	-0.033	0.253
POP → RWA							
High political interest	0.32	0.29	0.12	2.73	0.006	0.090	0.547
Average political interest	0.16	0.15	0.08	2.05	0.040	0.007	0.312
Low political interest	<0.01	<0.01	0.11	0.01	0.993	-0.212	0.214
POP → RWA → Conspiracy Beliefs							
High political interest	0.04	0.06	0.02	-	-	0.010	0.087
Average political interest	0.02	0.03	0.01	-	-	0.001	0.040
Low political interest	<0.01	0.01	<0.01	-	-	-0.023	0.022

interest, but not for low levels of interest.

### 3. Study 2

#### 3.1. Participants and procedure

Five data collections were carried out using the same procedures described for Study 1 performed in 2018 and 2019 after the Italian general election of March 2018. As in Study 1, participants were recruited by psychology students, who were told to recruit mainly non-student adult participants, in exchange for course credits.  $N$  for the combined dataset was 2301 (males = 1017; 44.2%; females = 1284; 55.8%). Mean age was 41.37 years ( $SD = 18.91$  years; range: 18–93 years; Table 5). In terms of education, 10.0% had attained a middle school diploma at most, 54.7% a high school diploma, and 35.3% had a

bachelor's degree at least.

#### 3.2. Measures

The same measures described were the same used in the datasets for Study 1, but voting referred to the National Election (instead that to the European Parliament election): ‘In the National political elections held on 4<sup>th</sup> March 2018, I voted for:’ 1) Democratic Party (PD); 2) Five-Star Movement (FSM); 3) Forza Italia (FI); 4) Liberi e Uguali (LeU); 5) Lega; Fratelli d'Italia (FdI); 6) other left or central-left parties; 7) other right or central-right parties; 8) I did not vote. We categorised this variable three groups of participants, as in Study 1: 1) voters of FSM and Lega were coded as voters for populist parties (POP); 2) voters of central-left (PD and LeU), of central-right (FI and FdI), and of other parties were coded as voters for non-populist parties (NOP); 3) participants who did not vote any parties were coded as abstainers (ABS).

#### 3.3. Analysis plan

The same analyses described for Study 1 were performed here. Descriptive statistics were computed and distributional assumptions were checked. Secondly, an ANOVA tested differences across the POP, NOP and ABS groups in the scores of RWA, SDO, political interest and conspiracy beliefs; pair-wise Bonferroni-corrected tests followed. Finally, we ran the moderated mediation model including the vote to the national election as predictor, RWA and SDO as mediators, political interest as a moderator, and conspiracy beliefs as the dependent variable.

#### 3.4. Results

##### 3.4.1. Descriptive and correlation analyses

The correlations reported in Table 5 suggest that that multicollinearity was not an issue (Field, 2009), and that departures from normality were not severe (Kline, 2015). Conspiracy beliefs were positively associated with SDO, showing a small effect size, with RWA, indicating a moderate-low magnitude, and negatively with political interest, with a small effect size. These preliminary results closely matched the coefficients found in Study 1, showing that that individuals with high SDO and RWA scores were more likely to report conspiracy beliefs, whereas people with high interest in politics would be less likely to report conspiracy beliefs compared to people with low interest in politics.

##### 3.4.2. ANOVA on conspiracy beliefs, SDO, RWA and political interest

The main effect of the vote explained a significant proportion of variance in conspiracy beliefs, in RWA, in SDO and in political interest.

**Table 5**  
Correlations and descriptive of the variables investigated (Study 2;  $n = 2301$ ).

	1	2	3	4	5	6	7
1. Conspiracy beliefs	1						
2. Gender	0.02	1					
3. Age	0.09**	-0.08**	1				
4. Education	-0.13**	0.02	0.05*	1			
5. SDO	0.08**	-0.12**	-0.08**	-0.06**	1		
6. RWA	0.29**	-0.04	0.15**	-0.24**	0.35**	1	
7. Political Interest	-0.12**	-0.17**	0.17**	0.17**	-0.13**	-0.23**	1
<i>M</i>	2.34	-	41.36	-	2.23	3.18	2.57
<i>SD</i>	0.74	-	18.91	-	1.02	1.20	0.80
$\alpha$	0.91	-	-	-	0.87	0.86	-
<i>Kurtosis</i>	-0.28	-	-1.32	-	0.30	-0.65	-0.48
<i>Skewness</i>	0.17	-	0.23	-	0.81	0.15	0.01

Gender was coded as follows: 1 = Males; 2 = Females.

SDO = Social Dominance Orientation; RWA = Right-Wing Authoritarianism.

\*  $p < .05$ .

\*\*  $p < .01$ .

Descriptive statistics by group and ANOVA results are reported in Table 6 and relative notes.

Pair-wise analyses adopting the Bonferroni correction were run to test mean differences among the groups. The effect size (*Cohen's d*) for each difference was computed by adjusting the calculation of the pooled standard deviation with weights for the sample sizes. Analyses showed that voters of populist parties (POP) reported more conspiracy beliefs compared to both voters to non-populist parties (NOP),  $d = 0.441$ ,  $CI_{95\%} = 0.348, 0.533$ , and to the abstainers (ABS),  $d = 0.212$ ,  $CI_{95\%} = 0.088,$

**Table 6**  
Mean differences on Conspiracy beliefs, RWA, SDO and Political interest by the Vote to the 2018 Italian National Election (Study 2).

	Vote	N	M	SD	ES	CI <sub>95%</sub> LLCI	CI <sub>95%</sub> ULCI
Conspiracy beliefs	NOP	1176	2.22	0.73	0.02	2.178	2.261
	ABS (a)	382	2.38	0.74	0.04	2.309	2.460
	POP (b)	743	2.53	0.69	0.03	2.485	2.585
	Total (c)	2301	2.35	0.74	0.02	2.319	2.379
RWA	NOP	1176	2.89	1.19	0.03	2.820	2.955
	ABS (a)	382	3.33	1.15	0.06	3.214	3.445
	POP (b)	743	3.56	1.14	0.04	3.473	3.637
	Total (c)	2301	3.18	1.20	0.03	3.127	3.226
SDO	NOP	1176	2.13	0.98	0.03	2.075	2.188
	ABS (a)	382	2.44	1.05	0.05	2.334	2.546
	POP (b)	743	2.29	1.04	0.04	2.214	2.364
	Total (c)	2301	2.23	1.02	0.02	2.192	2.275
Political interest	NOP	1176	2.75	0.78	0.02	2.710	2.799
	ABS (a)	382	2.23	0.81	0.04	2.146	2.309
	POP (b)	743	2.45	0.74	0.03	2.402	2.508
	Total (c)	2301	2.57	0.80	0.02	2.538	2.603

Note. Significant differences are indicated by different letters.

POP = Vote for populist parties; NOP = Vote for non-populist parties; ABS = abstainers;

ANOVA results: The main effect of the vote explained a significant proportion of variance in conspiracy beliefs,  $F(2,2298) = 43.94, p < .001, \eta_p^2 = 0.04$ , in right-wing authoritarianism (RWA),  $F(2,2298) = 78.79, p < .001, \eta_p^2 = 0.06$ , in social dominance orientation (SDO),  $F(2,2298) = 15.41, p < .001, \eta_p^2 = 0.01$ , and in political interest,  $F(2,2298) = 79.42, p < .001, \eta_p^2 = 0.07$ .

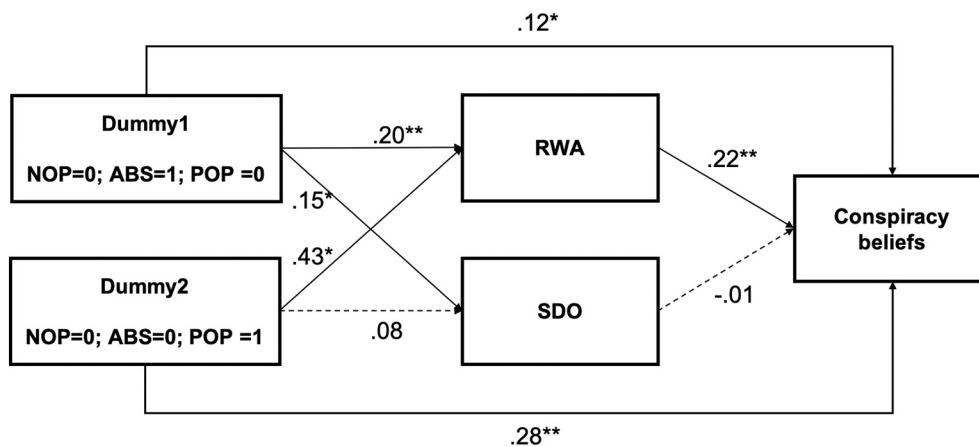
0.335, replicating the pattern of Study 1. Populists reported higher RWA scores than NOP,  $d = 0.585, CI_{95\%} = -1.217, -2.387$  and abstainers,  $d = 0.197, CI_{95\%} = 0.073, 0.321$ , confirming our expectations. POP voters reported higher SDO than NOP voters,  $d = 0.156, CI_{95\%} = 0.064, 0.248$ , unlike in study 1, but not compared to ABS voters,  $d = 0.145, CI_{95\%} = 0.021, 0.268$ , although this difference approached statistical significance, as was the case in Study 1. Finally, the POP group reported lower interest in politics, compared to NOP group,  $d = 0.392, CI_{95\%} = 0.299, 0.484$ , but higher interest compared with abstainers,  $d = 0.669, CI_{95\%} = 0.551, 0.787$ , as in Study 1.

### 3.4.3. Moderated mediation model

Two dummies for the three group categories of voters were created, as in Study 1 to test the moderated mediation model (Fig. 2). The same covariates described for Study 1 were considered. The results are summarised in Table 7. As expected, POP voters, compared to NOP voters, reported higher conspiracy beliefs,  $B = 0.28, SE = 0.03, \beta = 0.38, t = 8.15, p < .001, CI_{95\%} = 0.211, 0.346$ . This effect remained unchanged when covariates were entered,  $B = 0.28, SE = 0.05, \beta = 0.28, t = 5.98, p < .001, CI_{95\%} = 0.188, 0.371$ . The effect was mediated by RWA,  $B = 0.10, SE = 0.01, \beta = 0.10, CI_{95\%} = 0.069, 0.125$ , but not by SDO,  $B < 0.01, SE < 0.01, \beta < 0.01, CI_{95\%} = -0.006, 0.003$ . Specifically, POP voters were more likely to report higher RWA than NOP voters,  $B = 0.43, SE = 0.04, \beta = 0.43, t = 9.78, p < .001, CI_{95\%} = 0.343, 0.515$ , and higher RWA was associated to higher conspiracy beliefs,  $B = 0.22, SE = 0.02, \beta = 0.22, t = 9.56, p < .001, CI_{95\%} = 0.178, 0.269$ .

Unlike in Study 1, the findings indicated that political interest did not moderate the direct association of POP voters with conspiracy beliefs,  $B = 0.03, SE = 0.05, \beta = 0.03, t = 0.64, p = .525, CI_{95\%} = -0.060, 0.117$ . However, political orientation moderated the associations with both SDO,  $B = 0.16, SE = 0.06, \beta = 0.12, t = 2.55, p = .011, CI_{95\%} = 0.037, 0.280$ , and RWA,  $B = 0.20, SE = 0.07, \beta = 0.14, t = 3.00, p = .003, CI_{95\%} = 0.071, 0.339$ . Political interest also moderated the indirect association of POP voters on conspiracy beliefs via RWA,  $B = 0.07, SE = 0.01, \beta = 0.10, CI_{95\%} = 0.051, 0.093$ , but not via SDO,  $B < 0.01, SE < 0.01, \beta < 0.01, CI_{95\%} = -0.004, 0.002$ . Specifically, both the direct associations of POP voters with SDO and RWA, and the mediated association of POP voters with conspiracy beliefs via RWA grew stronger as the level of political interest of voters increased, replicating the same pattern of interaction found in Study 1.

The association of POP voters with RWA grew from a moderate effect at low levels of political interest, to stronger effects at moderate and high levels of interest (see Table 8). The direct effect of POP voters on SDO was significant only for high levels of political interest, but not for moderate or low levels of interest. Finally, the indirect effect of POP voters on conspiracy beliefs via RWA increased significantly from a



**Fig. 2.** Graphic Representation of the Model tested in Study 2 ( $n = 2301$ ). Notes. \*  $p < .05$ ; \*\*  $p < .01$ . Standardized coefficients are reported. Gender, Age and Education were added as covariates. RWA = Right-Wing Authoritarianism; SDO = Social Dominance Orientation; the moderator ‘Political interest’ and its numerous effects were not included for clarity reasons of the picture. The direct and interacting effects of Political interest on RWA, SDO, and Conspiracy beliefs are reported in Table 7.

**Table 7**  
Regressions of the Moderated Mediation Model (Study 2,  $n = 2301$ ).

	B	SE	t	p	CI <sub>95%</sub> LLCI	CI <sub>95%</sub> ULCI
<b>Outcome: RWA</b>						
Constant	0.24	0.13	1.95	0.051	-0.001	0.510
Dummy1	0.24	0.07	3.42	0.001	0.102	0.376
Dummy2	0.52	0.05	9.78	<0.001	0.413	0.620
Political interest	-0.39	0.04	-9.38	<0.001	-0.475	-0.311
Int1	0.105	0.08	1.30	0.194	-0.053	0.263
Int2	0.205	0.07	3.00	0.003	0.071	0.339
<b>Outcome: SDO</b>						
Constant	0.64	0.12	5.42	<0.001	0.410	0.874
Dummy1	0.15	0.06	2.39	0.017	0.027	0.276
Dummy2	0.08	0.05	1.65	0.099	-0.015	0.173
Political interest	-0.21	0.04	-5.40	<0.001	-0.280	-0.131
Int1	-0.02	0.07	-0.28	0.777	-0.164	0.123
Int2	0.16	0.06	2.55	0.011	0.037	0.280
<b>Outcome: conspiracy beliefs</b>						
Constant	2.24	0.08	26.76	<0.001	2.074	2.402
Dummy1	0.09	0.04	2.03	0.042	0.003	0.178
Dummy2	0.21	0.03	5.98	<0.001	0.138	0.273
RWA	0.14	0.01	9.56	<0.001	0.109	0.165
SDO	-0.01	0.02	-0.47	0.638	-0.038	0.023
Political interest	-0.06	0.03	-2.05	0.040	-0.112	-0.003
Int1	0.05	0.05	0.92	0.356	-0.054	0.150
Int2	0.03	0.05	0.63	0.525	-0.060	0.117
Int3	0.02	0.02	0.89	0.374	-0.018	0.049
Int4	-0.01	0.02	-0.38	0.701	-0.042	0.029

Note. Gender, Age and Education were added as covariates. Their effect on the outcomes were removed for clarity reasons. RWA = Right-Wing Authoritarianism; SDO = Social Dominance Orientation; Dummy 1: NOP = 0; ABS = 1; POP = 0; Dummy 2: NOP = 0; ABS = 0; POP = 1. Int1 = Dummy1 x Political Interest; Int2 = Dummy2 x Political Interest; Int3 = RWA x Political Interest; Int4 = SDO x Political Interest; RWA Model:  $R^2 = 17.47\%$ ,  $F(8,2292) = 60.66$ ,  $p < .001$ ; SDO Model:  $R^2 = 5.11\%$ ,  $F(8,1247) = 15.43$ ,  $p < .001$ ; Conspiracy beliefs Model:  $R^2 = 10.79\%$ ,  $F(12,2288) = 23.05$ ,  $p < .001$ .

modest effect at low levels of interest, to more substantial effects at moderate and high levels of political interest.

**4. General discussion**

The current study investigated web of associations among vote for Italian populist parties, conspiracy beliefs, RWA, SDO and political interest. A moderated mediation model based on the dual-process motivational model of ideology and politics was used as a tentative

**Table 8**  
Effects of POP of voters by Political Interest levels (Study 2,  $n = 2301$ ).

	B	$\beta$	SE	t	p	CI <sub>95%</sub> LLCI	CI <sub>95%</sub> ULCI
<b>POP → RWA</b>							
High political interest	0.68	0.56	0.08	8.92	<0.001	0.530	0.829
Average political interest	0.52	0.43	0.05	9.78	<0.001	0.413	0.620
Low political interest	0.35	0.29	0.08	4.68	<0.001	0.205	0.501
<b>POP → SDO</b>							
High political interest	0.21	0.20	0.07	2.97	0.003	0.070	0.341
Average political interest	0.08	0.08	0.05	1.65	0.099	-0.015	0.173
Low political interest	-0.05	-0.05	0.07	-0.68	0.494	-0.181	0.088
<b>POP → RWA → Conspiracy Beliefs</b>							
High political interest	0.10	0.14	0.02	-	-	0.066	0.043
Average political interest	0.07	0.10	0.01	-	-	0.051	0.093
Low political interest	0.04	0.06	0.01	-	-	0.024	0.068

framework to make sense of the associations (Duckitt & Sibley, 2009; Duckitt & Sibley, 2010). We tested this model in with data gathered after the 2014 European election and after the 2018 national political elections in Italy.

We found that that populist voters reported higher conspiracy beliefs and RWA, compared to non-populist voters and abstainers. Specifically, in both studies that populist voters reported higher conspiracy beliefs than non-populist and abstainers, and that populist voters reported higher RWA compared to non-populist voters. For SDO, populist voters reported higher SDO compared to non-populist voters only in Study 2 and not in Study 1. In both studies, populist voters showed lower political interest than non-populist voters, but higher interest compared with abstainers.

We expected that populist voters would have reported more conspiracy beliefs via higher scores of RWA (rather than SDO) and that the



direct and indirect associations of populist voters with conspiracy beliefs, RWA and SDO would be stronger for individuals with high political interest, compared to ones with lower political interest. In both studies, we found fair levels of support for such a pattern of associations. RWA, and not SDO, seems to mediate the positive relationship between populist voters and conspiracy beliefs, with the effect growing stronger as political interest increased.

Our results contribute to the previous literature on conspiracy beliefs and populism (Bergmann, 2018; Castanho Silva et al., 2017; Hameleers, 2020; van Prooijen et al., 2018) and corroborate the idea that people who endorse political populism shows some tendency to more likely endorse conspiracy beliefs. This is consistent with the suggestion that that populist politicians often use a conspiracy rhetoric in their discourses (Hawkins et al., 2017; Vossen, 2010), and with the notion that some of them actively contribute to the spread of conspiracy beliefs (Betz, 2013; Wysocka, 2013). As suggested by Castanho Silva et al. (2017), populism and conspiracy beliefs could also be expression of a latent disposition based on a Manichaeian point of view (Douglas et al., 2017), and on the preference for simplified explanations of complicated phenomena (Guan & Yang, 2020). On a related note, other scholars suggest that conspiracy beliefs grow as distrust for the political and ruling class spreads (Doyle, 2011; Fenster, 1999); in turn, such distrust makes fertile ground for conspiracy ideation.

Our findings might also help to clarify the not-uniform associations highlighted by the previous literature on RWA and SDO with conspiracy beliefs (Bruder et al., 2013; Grzesiak-Feldman, 2012, 2015; Grzesiak-Feldman & Irzycka, 2009; Swami, 2012; Wood & Gray, 2019) and populism (Arceneaux & Nicholson, 2012; Bakker et al., 2016; Crawford, 2012; Dunn, 2015; Osborne, Milojev, & Sibley, 2017; Pellegrini et al., 2019; Wilson & Sibley, 2013). In line with our expectations, we found that RWA, compared to SDO, is a better predictor of conspiracy beliefs and mediates the relationship between populist voting and the endorsement of conspiracy theories. This is not surprising, considering that individuals with high RWA are sensitive to the threats to the stability of social order and are more likely to see the world as a threatening and dangerous place where their traditional values and long-established laws and customs are in jeopardy. All these aspects are often core features of many conspiracy theories, which might appeal to the authoritarian individual's motivation repertoire (Abalakina-Paap et al., 1999; Grzesiak-Feldman, 2015; Wood & Gray, 2019). A possible explanation for the comparatively smaller role of SDO might be that SDO could represent a better predictor of specific conspiracy theories rather than of an aggregate of several conspiracy theories, such as those built around a purported challenge of the existing societal power structure, or focusing on conspiracy theories aimed at ameliorating the plight of the disadvantaged (i.e. minorities). Differently put, those high in SDO may react to conditions where their ideological and cultural hierarchy-enhancing devices are perceived as being under threat by endorsing conspiracy theories that explain the threat and point to the culprits (the disadvantaged, liberals, LGBT people, minorities, 'cosmopolites').

The scarcity of studies exploring the association of SDO with conspiracy beliefs (Grzesiak-Feldman, 2012; Swami, 2012) did not allow us to compare our results with a well-established body of research. However, the weak positive correlations between SDO and conspiracy beliefs are significant and consistent with previous findings (Pellegrini et al., 2019), suggesting that there could be a relationship and that perhaps it might be modulated by other factors not yet taken into consideration.

Finally, the moderating role of political interest which enhances the direct and mediated relationships of populist voters with RWA and conspiracy beliefs is coherent with the previous literature proposing that individuals interested in politics are more motivated to match their dispositional traits with the best-fitting political affiliation and to approach socio-political matters in a highly ideological perspective (Carrus et al., 2018; Duriez et al., 2005; Leone et al., 2012, 2014, 2016). Differently put, the association of dispositional variables (i.e. RWA) with political choices and the consequent conspiratorial outlook on reality

are stronger among individuals more interested in politics (Panno, Carrus, & Leone, 2019). Thus, as suggested by Baldassarri and Gelman (2008), political interest can drive polarisation and foster attitude constraint, activating a greater association between RWA and conspiracy beliefs in populist voters.

#### 4.1. Limitations and further directions

Some limitations should be acknowledged. Firstly, convenience samples such as ours limit the generalisability the results. Secondly, the disproportion between the voters of M5S ( $n_{Study1} = 765$ ;  $n_{Study2} = 554$ ) and Lega ( $n_{Study1} = 85$ ;  $n_{Study2} = 189$ ), compared to the other parties, did not allow us to test possible differences in our model between the voters of these two populist parties, which differ remarkably in terms of a traditional left-right ideological framework (Bordignon & Ceccarini, 2015; Ivaldi et al., 2017; Mosca & Tronconi, 2019; Passarelli & Tuorto, 2018). After a short-lived coalition government chaired by President Giuseppe Conte (from 1st June 2018 to 4th September 2019), M5S and Lega have been antagonistic political forces: the former in government 'Conte II', the latter being the leading force in the opposition (from 4th September 2019 to 13th February 2021). Subsequently, Lega have returned in the current coalition government chaired by the new President Mario Draghi, with M5S and other left-wing and right-wing political parties (from 13th February 2021 to today). Future studies might recruit more balanced samples in order to test possible differences in the model tested in our research. Of course, no causal inference can be drawn from our cross-sectional data. Finally, we considered conspiracy beliefs as a monolithic belief system, whereas future studies might explore the relationships among populist voters with RWA, SDO and endorsement to specific conspiratorial theories. This could enable the detection of effects not found in our samples.

A further limitation of our study is that we did not consider the ideological distinction between left and right conspiracy beliefs with regards to the groups they target. Indeed, literature suggests distinguishing between belief in upward conspiracy theories (i.e., targeting relatively powerful groups), which are theorized as power-challenging beliefs, and downward conspiracy theories (i.e., targeting relatively powerless groups), which are theorized as being underpinned by conservative ideology (Nera, Wagner-Egger, Bertin, Douglas, & Klein, 2021). Such an aspect certainly constitutes a point of development for future studies to analyses potential differences in the effects found in our models, based on different types of conspiracy beliefs. In line with that, even a conspiracy mentality measure would have helped make our model less underspecified. Future studies could consider this measure either as a covariate, to strengthen the effects on conspiracy content showed by our model net of people's general conspiracy mentality, or as a moderating variable, to investigate whether these effects are particularly strong in people who basically have high levels of conspiracy mentality.

Finally, our work did not take into account the three dimensions of populism, which could help to explain in more depth the relationships highlighted in our models (Erisen et al., 2021). They are: 1) People-centrism (the belief in a good, homogeneous, and unified common people as the sovereign); 2) Anti-elitism (the belief that elite seeks to exploit the pure and moral people, which perpetuates feelings of the world as an unfair place, where the undeserving have it better); 3) Manichean worldview (which separates neatly between right and wrong, blameless and blameworthy). In this study we focused on participants' voting behavior to operationalize the variable 'populism', whereas future studies might consider these three dimensions to strengthen and corroborate our results.

#### Data availability statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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## Ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This article does not contain any studies with animals performed by any of the authors.

## Declaration of competing interest

The authors declare that they have no conflict of interest.

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