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**Predicting right-wing authoritarianism via personality and dangerous world beliefs: Direct, indirect, and interactive effects.**

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RUNNING HEAD: Personality, Dangerous World Beliefs, and RWA

Predicting right-wing authoritarianism via personality and dangerous world beliefs: Direct, indirect,  
and interactive effects

For Peer Review Only

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## Abstract

In an Italian sample ( $N = 483$ , 78.23% women, mean age = 27.61 years old), we used structural equation modeling with latent variables and interactions to analyze the direct, indirect, and interactive effects exerted on right-wing authoritarianism (RWA) by the Big Five factors of personality and by dangerous world beliefs (DWB). Openness, Neuroticism, and Conscientiousness exerted direct effects on RWA; the first two relationships were partially mediated by DWB. Most importantly, the relationship between DWB and RWA was moderated by Openness: DWB significantly influenced RWA solely for participants high in Openness. Limitations and possible developments of this research are discussed.

Abstract word count = 100

Keywords: Right-wing authoritarianism, Big Five, Dangerous world beliefs, Threat, Moderation

Predicting right-wing authoritarianism via personality and dangerous world beliefs: Direct, indirect, and interactive effects

The cognitive-motivational dual process model of the relationship between ideology and prejudice developed by Duckitt (2001; Duckitt, Wagner, du Plessis, & Birum, 2002) is widely used to predict right-wing authoritarianism (RWA). RWA is a construct conceived by Altemeyer (1981, 1988, 1996) as the covariation of authoritarian submission (a strong tendency to submit to authorities, who are perceived as established and legitimate in the society in which one lives), authoritarian aggression (a general aggressiveness directed against various outgroups and perceived to be positively sanctioned by established authorities), and conventionalism (a strong tendency to adhere to social conventions, which are perceived as endorsed by the society and its established authorities). Such a model predicts RWA using two types of variables: personality and dangerous worldview.

In his first studies, Duckitt (2001; Duckitt et al., 2002) showed that personality—assessed *à la* Eysenck (1954) in terms of social conformity, i.e., the tendency to identify with the existing social order and to prefer order, structure, stability, and security in both one's personal and social lives fosters RWA both directly and via the partial mediation of dangerous worldview, assessed *à la* Altemeyer (1988) in terms of dangerous world beliefs (DWB), i.e. believing the world to be dangerous, unpredictable, and threatening. In two studies, respectively conducted on an adult and a student sample, Van Hiel, Cornelis, and Roets (2007) tried to connect the Duckitt model with the mainstream personality research, and tested the model assessing personality in terms of the Big Five factors of personality. In their research, Van Hiel and colleagues detected a direct, positive link between Conscientiousness (the trait leading people to be habitually careful, reliable, hard-working, well-organized, and purposeful) and RWA (in their adult sample only). Moreover, RWA showed to be negatively influenced by Openness (the trait predicting curiosity, imagination, creativity, originality, and flexibility) and Neuroticism (the trait accounting for the tendency to experience negative affect, such as anxiety, depression, hostility, and to be self-conscious and impulsive).

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3 These links were partially mediated by DWB, which, reduced by Openness and fostered by  
4 Neuroticism, positively influenced RWA. The other two Big Five factors did not influence RWA.  
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8 The same results have been recently found by Sibley and Duckitt (2009).  
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10 These results are consistent with those stemming from the literatures on personality and on  
11 RWA. Indeed, high RWA scorers and very Conscientious people share low levels of tolerance  
12 towards people showing beliefs and behaviors different from their own and high levels of aversion  
13 to change. Moreover, high authoritarians and people scoring low in Openness tend to show a rigid  
14 identification with the dominant social order and to support it, because it gives them an explicit and  
15 unambiguous set of moral prescriptions they may use to understand how the society “should” work.  
16  
17 Consistently, they both tend to be very radical in considering values and norms of the outgroups as  
18 serious threats to their ingroup’s values and norms. Finally, those who score high on RWA and  
19 neuroticism tend to share the tendency to experience negative affect and hostility, and to be both  
20 impulsive and passive (Butler, 2000; Caprara, Barbaranelli, & Zimbardo, 1999; Duckitt & Sibley,  
21 2009; McCrae & Costa, 1987b; McCrae & John, 1992; Stenner, 2005).  
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36 Sibley and Duckitt (2008) recently underscored the need for research on the interactions  
37 between the predictors of RWA. At present, in the context of the Duckitt model, these interactions  
38 have been examined in two published studies. The first one was conducted by Sibley and Duckitt  
39 (2009) themselves, who predicted RWA using a partially exploratory approach, adding the 5  
40 interactions between the Big Five and DWB to the Big Five factors of personality and to dangerous  
41 world belief. They did not develop precise moderation hypotheses: Analyzing the *F change* of the  
42 model with and without the interactions, they concluded that adding the 5 interactions between the  
43 Big Five and DWB would have provided too low an increase to justify their inclusion in the Duckitt  
44 model. The second one was performed by Dallago and Roccato (2010), who tried to extend the  
45 Duckitt model by testing the explicit hypothesis that Openness should moderate the effect exerted  
46 by dangerous worldview on RWA. These authors based their reasoning on two different literatures.  
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3 The first one is that on Openness. Research showed that very Open people— who under  
4 conditions of perceived security and stability are less authoritarian than people low in  
5 Openness—tend to be particularly sensitive to perceptual stimuli and inclined to feel vulnerable and  
6 unprotected (Hartmann, 1991; McCrae 1994, Van Hiel, & Mervielde, 2004). Research showed they  
7 are effective copers (David & Suls, 1999; O'Brien & deLongis, 1996; Penley & Tomaka, 2002),  
8 and that they tend to cope with stress with many kinds of reactions: among them, engaging in  
9 hostile reactions and perseverance (McCrae & Costa, 1987a). Thus, in stressful circumstances they  
10 tend to become more similar to people high in RWA, in that hostility systematically characterizes  
11 right-wing authoritarians.  
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24 The second one is a brand new line of research, recently launched by Van Hiel and DeClercq  
25 (2009). In their ground-breaking article, van Hiel and DeClercq found that high RWA reduced (a)  
26 the impact of a distressed personality on depression (Study 1), and (b) the physical and social  
27 negative consequences of 21 potentially stressful life events experienced in the 24 months  
28 preceding their survey (Study 2). In this light, authoritarianism, far from being a unavoidably  
29 dysfunctional trait, should be considered as an efficient mechanism people may use to cope with  
30 stress. This new conception is consistent, at least in part, with four different literatures: (a) with the  
31 terror management theory (Greenberg, Pyszczynski, & Solomon, 1996; Stone, 2001), in that people  
32 may successfully cope with death anxiety by adhering to the values and views which dominate in  
33 their society, i.e. raising their conventionalism, which is one of the attitudinal clusters defining  
34 RWA; (b) with the social identity theory (Tajfel, 1981), in that people may express  
35 prejudice—which is consistently linked with authoritarianism (e.g. Whitley, 1999)—to successfully  
36 protect or raise a weak self-esteem; (c) with the frustration-aggression theory (Dollard, Doob,  
37 Miller, Mowrer, & Sears, 1939), in that authoritarian aggression—another of the three attitudinal  
38 clusters which define RWA—may be successfully used to satisfy one's aggressive drive and thus to  
39 relieve the negative affect stemming from his/her frustration; and (d) with the most recent studies  
40 on cognitive dissonance, which showed that in threatening times high vs. low RWA scorers aspire  
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3 to live in a simpler world, and thus to prefer uniformly pro-attitudinal arguments (Lavine, Lodge, &  
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5 Freitas, 2005).  
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8 Based on the above literatures, Dallago and Roccato hypothesized the interaction between  
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10 Openness and perceived threat to safety to significantly influence RWA. In particular, they  
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12 expected that people high in Openness would significantly increase their low RWA level when  
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14 strongly perceiving a threat to their safety as a defensive reaction against such threat and their  
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16 feelings of personal vulnerability. From this perspective, their “authoritarian response” could be  
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18 considered a mechanism for coping with threat. The same coping mechanism ought not to be  
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20 observed in people low in Openness who, in conditions of perceived security and stability, besides  
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22 showing high RWA levels (possibly so high to place them at their own ceiling of RWA), tend to  
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24 feel less vulnerable than people high in Openness. Dallago and Roccato’s analyses confirmed such  
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26 hypothesis. Thus, these authors have been the first to find an interactive effect at the origins of  
27  
28 RWA. Interestingly, Sibley and Duckitt’s (2009) and Dallago and Roccato’s (2010) studies used  
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30 different personality inventory (the IPIP and the BFQ respectively) and threat measures (DWB and  
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32 perceived dangerousness of criminality, respectively). Consequently their results have been not  
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34 directly comparable, and thus not necessarily inconsistent.  
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41 However, Dallago and Roccato’s research has a relevant limit. Having performed a secondary  
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43 analysis on an Italian national sample, they could not measure dangerous worldview using the  
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45 standard DWB scale. Instead, they could use a single four-category item about perceived  
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47 dangerousness of criminality (“Think of micro-criminality: How would you define the situation  
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49 regarding this problem in Italy?”). Thus, their results were not fully comparable with those gained  
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51 using the standard Duckitt model. As a consequence, we do not yet know if the Duckitt model can  
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53 be actually extended taking into consideration the Openness-dangerous worldview interaction  
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55 detected by Dallago and Roccato. To examine this, we performed the following study.  
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#### Goals and Hypotheses



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3 We sought to extend the Duckitt model, taking into consideration the interactive effect  
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5 between Openness and dangerous worldview found by Dallago and Roccato (2010). We tested a  
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7 group of hypotheses concerning the direct and indirect effects exerted by personality and dangerous  
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9 worldview on RWA, and a single hypothesis on the interactive effect they may exert on our  
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11 dependent variable.  
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15 If our data were comparable with those found by Van Hiel, Cornelis, and Roets (2007) and by  
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17 Sibley and Duckitt (2009), Openness should negatively influence RWA (HP1.1), Conscientiousness  
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19 should positively influence it (HP1.2), and Neuroticism should negatively influence RWA (HP1.3).  
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21 Moreover, DWB should positively influence RWA (HP1.4). Finally, DWB should partially mediate  
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23 the relation between Openness and RWA (HP1.5) and that between Neuroticism and RWA (HP1.6).  
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25 We tested these hypotheses in our first mediation model.  
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30 Concerning the moderated effects exerted by personality and DWB on RWA, based on  
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32 Dallago and Roccato (2010) we expected the interaction between Openness and DWB to  
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34 significantly influence RWA. In detail, according to our HP2, we expected participants scoring  
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36 high, but not those scoring low, in Openness to significantly heighten their RWA score when  
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38 scoring high in DWB, as a defensive reaction against perceived threat and their feelings of personal  
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40 vulnerability. We tested this hypothesis in our second moderated mediation model.  
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## 44 Method

### 45 *Participants and procedure*

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47 The students of the social psychology courses at the Universities of Torino and of Palermo  
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49 were contacted via an email in which we asked them to answer an online questionnaire and to invite  
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51 other people in their social networks to do the same. As a whole, a sample of 483 people (78.23%  
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53 women) residing throughout the whole Italian territory, aged between 18 and 68 years old ( $M =$   
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55  $27.61$ ,  $SD = 11.38$ ) participated in our research. Structural equation models with latent variables,  
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57 performed by the *Mplus* (Muthén & Muthén, 1998) software, were used to test our hypotheses.  
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### *Measures*

We assessed RWA using Giampaglia and Roccato's (2002) balanced Italian adaptation of Altemeyer's (1996) RWA Scale (14 items, 4 response categories),  $\alpha = .88$ . We modeled the construct as a latent variable, measured by three item parcels. The Big Five factors of personality have been assessed using the same short version (20 items, 5 response categories) of the Italian Big Five Questionnaire (Caprara, Barbaranelli, Borgogni, & Perugini, 1993; Caprara, Barbaranelli, & Livi, 1994) previously used by Dallago and Roccato (2010). Exploratory factor analysis (principal axis factoring extraction, varimax rotation) yielded the expected five dimensions (first six eigenvalues: 1.930, 1.779, 1.305, 1.203, 1.156, and .715), corresponding to the Openness ( $\alpha = .56$ ), Conscientiousness ( $\alpha = .74$ ), Neuroticism ( $\alpha = .74$ ), Extraversion ( $\alpha = .62$ ), and Agreeableness ( $\alpha = .62$ ) Big Five factors.<sup>1</sup> We modeled each Big Five factor as a latent variable measured by 4 items. Finally, we assessed DWB using Mirisola, Di Stefano, and Falgares' (2007) balanced Italian DWB Scale,  $\alpha = .90$ . The scale is composed of 20 items, such as, "There are many dangerous people in our society who will attack someone out of pure meanness, for no reason at all" and "Although it may *appear* that things are constantly getting more dangerous and chaotic, it really isn't so. Every era has its problems, and a person's chances of living a safe, untroubled life are better today than ever before" (con-trait). We modeled DWB as a latent variable, measured by three item parcels.

We tested our mediation hypotheses using the Weighted Least Squares Means and Variance (WLSMV) adjusted estimation, and tested our moderation hypothesis through full-information maximum likelihood with robust standard errors (MLR) using the latent moderated structural equations approach (Klein & Moosbrugger, 2000; Little, Bovaird, & Widaman, 2006; Marsh, Wen, & Hau, 2004). We evaluated the fit of our models using the *RMSEA* (Steiger, 1980), the *CFI* (Bentler, 1990), and the *TLI* (Tucker & Lewis, 1973) coefficients. Based on Hu and Bentler (1998), we considered the *CFI* and the *TLI* as satisfactory if close to or above 0.95, and the *RMSEA* as satisfactory if close to or below 0.06.

## Results

### *Mediation models*

Table 1 displays the correlations among the latent variables we analyzed.

We tested our first group of hypotheses in our first mediation model, which showed a satisfactory fit,  $TLI = .954$ ,  $CFI = .945$ ,  $RMSEA = .059$ . Obtained results are displayed in Figure 1. Consistent with our HP1.1, HP1.2, and HP1.3, RWA was directly influenced by Openness, Conscientiousness, and Neuroticism. Moreover, consistent with our HP1.4, HP1.5, and HP1.6, Openness and Neuroticism predicted DWB, which, in turn, predicted RWA. Bootstrapping showed that dangerous worldview partially mediated the effects exerted by Neuroticism (mean = .11, 99% CI .04, .26,  $p < .01$ ) and Openness (mean = -.23, 99% CI -.34, -.13,  $p < .01$ ) on RWA.

To check the robustness our results, and to further test their degree of overlap with those by Van Hiel et al. (2007) and by Sibley and Duckitt (2009), we tested a second mediation model, in which we added the other additional Big Five factors to explore if they influenced RWA directly and/or via the mediation of DWB. None of these new paths gained statistical significance. Indeed, when these additional paths were included, RWA was significantly predicted by Openness (path = -.43,  $p < .001$ ), Conscientiousness (path = .14,  $p < .05$ ), Neuroticism (path = -.13,  $p < .05$ ), and DWB (path = .47,  $p < .001$ ), but not by Agreeableness (path = .09,  $p = .10$ ) or Extraversion (path = .06,  $p = .40$ ). DWB was predicted by Neuroticism (path = .30,  $p < .001$ ), and Openness (path = -.48,  $p < .001$ ), but not by Conscientiousness (path = .04,  $p = .47$ ), Agreeableness (path = .03,  $p = .67$ ), or Extraversion (path = .13,  $p = .09$ ). In line with previous results (Van Hiel et al., 2007; Sibley & Duckitt, 2009), DWB partially mediated the effects exerted by Neuroticism (mean = .12, 99% CI .05, .27,  $p < .01$ ) and Openness (mean = -.23, 99% CI -.35, -.11,  $p < .01$ ) on RWA.

Thus, concerning the direct and indirect influences exerted on RWA by personality and dangerous worldview, our data were fully consistent with Van Hiel and colleagues' (2007) and with Sibley and Duckitt's (2009) conclusions.

#### *Moderated mediation models*

To test our HP2, we added the interaction between Openness and DWB, computed as a latent variable using the latent moderated structural equations approach (Klein & Moosbrugger, 2000;

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3 Little et al., 2006; Marsh et al., 2004), and the path linking this interaction to RWA, to the previous  
4 mediation model (see Figure 2). The paths which in our first model reached statistical significance  
5 maintained significance. Moreover, consistent with our HP2, the latent interaction between  
6 Openness and DWB significantly predicted RWA (path = .36,  $p < .001$ ).<sup>2</sup> A likelihood-ratio test  
7 showed that the model which included the latent interaction path as a free parameter displayed a  
8 significantly better fit than the model in which the path was fixed to zero,  $\chi^2(1) = 7.35$ ,  $p < .01$ . A  
9 subsequent exploratory analysis, performed adding the latent interactions between the other Big  
10 Five dimensions and DWB, showed that these other interactions did not significantly predict RWA  
11 (Neuroticism X DWB: path = .15,  $p = .21$ ; Conscientiousness X DWB: path = .05,  $p = .56$ ,  
12 Agreeableness X DWB: path = .10,  $p = .75$ , Extraversion X DWB: path = .13,  $p = .56$ ).

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15 In order to graphically show the moderating effect of Openness, we performed a moderated  
16 regression (Aiken & West, 1991; Cohen, Cohen, West, & Aiken, 2003) using latent variables  
17 scores. Based on Bauer and Curran (2005), we computed the two roots of Openness which  
18 demarcate the boundaries of the region of significance ( $M = 0$ ,  $SD = .35$ , 95% CI -1.618, -.669).  
19 Within region of significance, the relationship between DWB and RWA was not significant. As  
20 displayed in Figure 3, for Openness values below -1.91  $SDs$  the relationship between DWB and  
21 RWA was not significant. For Openness values above -1.91  $SDs$  the relationship between  
22 dangerous worldview and RWA was positive and significant, and the magnitude of this association  
23 was proportional to Openness levels.<sup>3</sup>

## 24 Discussion

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27 This research aimed at extending the Duckitt (2001; Duckitt et al., 2002) model of the direct  
28 and mediated influences exerted on right-wing authoritarianism by the Big Five factors of  
29 personality and by dangerous worldview. Our main goal was to test the hypothesis that, similar to  
30 Dallago and Roccato (2010)—who used a nonstandard measure for dangerous  
31 worldview—Openness should moderate the relationship between dangerous world beliefs and  
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3 RWA: Dangerous world beliefs should foster RWA among participants high, but not among those  
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5 low, in Openness.  
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8 We replicated all the direct and mediated links between personality, dangerous world beliefs,  
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10 and RWA previously found by Van Hiel and colleagues (2007) and by Sibley and Duckitt (2009).  
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12 Indeed, RWA was negatively influenced by Openness and Neuroticism and positively influenced by  
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14 Conscientiousness. The relationship between Openness and Neuroticism and RWA was partially  
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16 mediated by dangerous world beliefs, while the other Big Five factors did not influence our  
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18 dependent variable directly or indirectly. Most importantly, our results were consistent with our  
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20 moderation hypothesis: Dangerous world beliefs significantly fostered RWA among people high,  
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22 but not among those low, in Openness, while the interactions between the other four Big Five  
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24 factors and dangerous world beliefs did not influence our dependent variable. Considering these  
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26 results, three main conclusions may be drawn from this study.  
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31 Our first conclusion concerns the origins of RWA. Generally speaking, our research allowed  
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33 us to extend the Duckitt model, taking into account the interaction between personality and  
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35 dangerous worldview, and to export to this research context the results concerning moderation  
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37 recently found by Dallago and Roccato (2010), using a nonstandard measure of dangerous  
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39 worldview, i.e. the perception of a large spread of criminality in the participants' national territory.  
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41 This is particularly relevant for researchers into the prediction of RWA, because, according to the  
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43 methodological literature, the detection of interactive effects between predictors gives  
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45 sophistication and maturity to the scientific literature (Aguinis, Boik, & Pierce, 2001; Judd,  
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47 McClelland, & Culhane, 1995).  
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52 However—this is our second conclusion—we believe we should not generalize the interactive  
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54 influence exerted by Openness and dangerous worldview to *any* kind of societal threat. Indeed,  
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56 Dallago, Mirisola, and Roccato (in press) recently showed that the usual direct and indirect effects  
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58 exerted by the Big Five and dangerous worldview held when using perceived terrorist threats as a  
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60 measure of dangerous worldview. Nonetheless, the moderated effect found by Dallago and Roccato

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3 (2010) and in this study did not. For Italian participants, compared to perceived criminality threats  
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5 (taken into account by Dallago and Roccato, 2010) and to perceived threats due to the deterioration  
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7 of everyday social life (like those operationalized using Altemeyer's (1988) Dangerous World  
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9 Beliefs Scale, used in this research and in those by Duckitt), terrorist threats are much more  
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11 abstract, in that they make little reference to participants' direct experiences and are characterized  
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13 by rather low probabilities of realistically affecting people's quality of life.  
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17 According to Lazarus and Folkman (1984), distal stressful events foster appraisals and coping  
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19 strategies which are qualitatively different from those fostered by more direct and more realistic  
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21 threats. Following this line of reasoning, we postulate that the coping strategies predicted by Van  
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23 Hiel and De Clercq (2009) may be activated only by perceived threats that are proximal and/or that  
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25 have been directly experienced. Lee, Gibson, Markon, and Lemyre's (2009) study, conducted after  
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27 September 11<sup>th</sup>, 2001, utilized citizenship (either American or Canadian) as a proxy variable for  
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29 dividing participants into groups of people who have and have not had a direct experience of a  
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31 terrorist attack. Their results were consistent with our hypotheses, but the variable they used to  
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33 classify their participants was far from satisfactory. Moreover, their approach was non  
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35 experimental, and thus they could not analyze genuine causal effects. Future experimental research,  
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37 performed to test this hypothesis by presenting different threatening scenarios to participants and  
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39 analyzing the strategies used by people to actively cope with different kinds of  
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41 threat—characterized by different levels of proximity and/or directly vs. non directly  
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43 experienced—will be welcome.  
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51 Our last conclusion concerns the nature of RWA. The literature reveals that perceived societal  
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53 threat fosters RWA (Altemeyer, 1988; Cohrs & Asbrock, 2009; Feldman & Stenner, 1997;  
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55 Mirisola, Di Stefano, & Falgares, 2007; Rickert, 1998; Nagoshi, Terrel, & Nagoshi, 2007; Sales &  
56  
57 Friend, 1973; Stevens, Bishin, & Barr, 2006). Recently, Van Hiel and De Clercq (2009)  
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59 demonstrated that RWA may be considered an efficient mechanism people use to cope with threat  
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when they feel particularly vulnerable. In light of this, after those by Dallago and Roccato (2010),

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3 our results should be considered the second indirect confirmation of Van Hiel and De Clercq's  
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5 (2009) conception of RWA as "good for the self", in that they showed that one should expect RWA  
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7 to increase for people high in Openness alone—who in "normal" conditions are characterized by  
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9 low authoritarianism levels—when they tend to feel particularly vulnerable to distress and/or threat.  
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11 In this light, RWA should be understood as something people rely upon when feeling particularly  
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13 threatened and/or distressed to defend and/or to promote their wellbeing. Of course, this does not  
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15 mean that RWA is "good for the others" also. Indeed, "there is ample evidence that authoritarianism  
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17 is not advantageous for other people, and, without a doubt, interacting with high scoring  
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19 authoritarians is often an unpleasant and cumbersome event for members of minority groups" (Van  
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21 Hiel & De Clercq, 2009, p. 47; for a convincing experimental demonstration, see Altemeyer, 2003).

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27 It should be noted that Van Hiel and De Clercq's (2009) new conception of RWA runs  
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29 counter to the traditional approaches on authoritarianism in the literature. Indeed, authoritarianism  
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31 has been systematically conceived as an individual dysfunctional characteristic stemming from  
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33 personality or character disorders (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950; Fromm,  
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35 1941; Reich, 1933), and thus as an inevitably "bad for the self" construct. In addition to this, the  
36  
37 literature traditionally considers authoritarianism as a stable personality trait (Adorno et al., 1950;  
38  
39 Altemeyer, 1981, 1988, 1996; Fromm, 1941; Reich, 1933). As a matter of fact, some researchers  
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41 (i.e. Duckitt, 2001; Duckitt et al., 2002; Jost, Glaser, Kruglanski, & Sulloway, 2003; Mavor, Louis,  
42  
43 & Sibley, 2010; Mirisola, Sibley, Boca & Duckitt, 2007) conceive RWA as an ideological variable,  
44  
45 not as a personality trait. Given that ideological positions are less resistant to change than  
46  
47 personality traits (Kinder & Sears, 1985), Van Hiel and De Clercq's (2009) approach is consistent  
48  
49 with this second conceptualization of RWA. Research analyzing the interactive effects exerted by  
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51 Openness and experimentally induced stress and/or threat on the *changes* of individual levels of  
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53 RWA from before to after the manipulation of stress and/or of threat will plausibly contribute to  
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55 further improve the quality of the literature on RWA, giving support to one of these two opposed  
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57 conceptions of RWA.  
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3 We would like to conclude this article with a general comment on the links between threat and  
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5 RWA. Consistent with the mainstream literature (Altemeyer, 1988; Feldman & Stenner, 1997;  
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7 Rickert, 1998; Steven, Bishin, & Barr, 2006), we analyzed the effects exerted on RWA by  
8  
9 perceived rather than actual threat (Altemeyer, 1988; Cohrs & Asbrock, 2009; Feldman & Stenner,  
10  
11 1997; Mirisola, Di Stefano, & Falgares, 2007; Rickert, 1998; Sales & Friend, 1973; Stevens, Bishin,  
12  
13 & Barr, 2006). However, a second line of research on this topic does exist. Researchers examining  
14  
15 this alternate area, based on the analysis of aggregated data, demonstrated that authoritarian  
16  
17 attitudes and behaviors are widespread in conditions of high societal threat (Doty, Peterson, &  
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19 Winter, 1991; Peterson & Gerstein, 2005; Sales, 1973). Results stemming from this line of  
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21 investigation, however, are exposed to the “ecological fallacy,” in that the correlations detected at  
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23 the aggregate level do not necessarily reflect those found at the individual level (Robinson, 1950).  
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25 Moreover, we do not have any information on the effects exerted on RWA by the interactions  
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27 between actual and perceived threat and between personality and actual threat. This unanswered  
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29 question is particularly relevant as the literature systematically shows that the relationship between  
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31 actual and perceived threat is often much weaker than one may hypothesize (e.g. Hale, 1996).  
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38 It is now possible to directly answer research questions like this, thanks to the development of  
39  
40 the hierarchical linear models (HLM) approach (Raudenbush & Bryk, 2002). HLMs allow the  
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42 researcher to predict a dependent variable using, at the same time, independent variables belonging  
43  
44 to the individual (in our case, personality and dangerous worldview) and context (in our case, actual  
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46 dangerousness of participants’ life space) levels. Most importantly, such models allow the  
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48 researcher to use as predictors cross-level interactions, i.e. interactions between variables placed at  
49  
50 the individual and the contextual levels. A multilevel mediated-moderated model aimed at  
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52 predicting RWA using the Big Five factors of personality, Altemeyer’s (1988) Dangerous Beliefs  
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54 Scale and contextual indicators of threat (mainly concerning the spread of criminality), as well as  
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56 their intra- and cross-level interactions could contribute significantly to the RWA literature, and  
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may even be considered the “new frontier” of the literature on the relationship among personality, threat, and authoritarianism.

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## References

- Adorno, T. W., Frenkel-Brunswik, E., Levinson, D. J., & Sanford, R. N. (1950). *The authoritarian personality*. New York, NY: Harper.
- Aguinis, H., Boik, R. J., & Pierce, C. A. (2001). A generalized solution for approximating the power to detect effects of categorical moderator variables using multiple regression. *Organizational Research Methods, 4*, 291-323. doi: 10.1177/109442810144001
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Altemeyer, B. (1981). *Right-wing authoritarianism*. Winnipeg: University of Manitoba Press.
- Altemeyer, B. (1988). *Enemies of freedom: Understanding right-wing authoritarianism*. San Francisco, CA: Jossey-Bass.
- Altemeyer, B. (1996). *The authoritarian specter*. Cambridge, MA: Harvard University Press.
- Altemeyer, B. (2003). What happens when authoritarians inherit the Earth? A simulation. *Analyses of Social Issues and Public Policy, 3*(1), 15-23.
- Bauer, D. J., & Curran, P. J. (2005). Probing interactions in fixed and multilevel regression: Inferential and graphical techniques. *Multivariate Behavioral Research, 40*(3), 373-400.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin, 107*(2), 238-246.
- Butler, J. C. (2000). Personality and emotional correlates of right-wing authoritarianism. *Social Behavior and Personality, 28*(1), 1-14.
- Caprara, G. V., Barbaranelli, C., Borgogni, L., & Perugini, M. (1993). The big five questionnaire: A new questionnaire for the measurement of the five factor model. *Personality and Individual Differences, 15*(3), 281-288.
- Caprara, G. V., Barbaranelli, C., & Livi, S. (1994). Mapping personality dimensions in the Big Five model. *European Journal of Applied Psychology, 44*(1), 9-16.

- 1  
2  
3 Caprara, G. V., Barbaranelli, C., & Zimbardo, P. (1999). Personality profiles and political parties.  
4  
5 *Political Psychology*, 20(1), 175-197.  
6  
7  
8 Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation*  
9  
10 *analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Erlbaum.  
11  
12  
13 Cohrs, J. C., & Asbrock, F. (2009). Right-wing authoritarianism, social dominance orientation and  
14  
15 prejudice against threatening and competitive ethnic groups. *European Journal of Social*  
16  
17 *Psychology*, 39, 270-289. doi: 10.1002/ejsp.545  
18  
19  
20 Dallago, F., Mirisola, A., & Roccato, M. (in press). Personalità, minaccia e autoritarismo di destra  
21  
22 [Personality, threat, and right-wing authoritarianism]. *Psicologia sociale*.  
23  
24  
25 Dallago, F., & Roccato, M. (2010). Right-wing authoritarianism, Big Five, and perceived threat to  
26  
27 safety. *European Journal of Personality*, 24, 106-122. doi: 10.1002/per.745  
28  
29  
30 David, J. P., & Suls, J. (1999). Coping efforts in daily life: Role of Big Five traits and problem  
31  
32 appraisals. *Journal of Personality*, 67(2), 265-294.  
33  
34  
35 Doty, R. M., Peterson B. E., & Winter, D. G. (1991). Threat and authoritarianism in the United  
36  
37 States 1978–1987. *Journal of Personality and Social Psychology*, 61, 629–640. doi:  
38  
39 10.1037/0022-3514.61.4.629  
40  
41 Duckitt, J. (2001). A dual-process cognitive-motivational theory of ideology and prejudice. In M. P.  
42  
43 Zanna (Ed.), *Advances in experimental social psychology* (Vol. 33, pp. 41–113). San Diego,  
44  
45 CA: Academic Press.  
46  
47  
48 Duckitt, J., & Sibley, C. G. (2009). A dual-process motivational model of ideology, politics, and  
49  
50 prejudice. *Psychological Inquiry*, 20, 98-109. doi : 10.1080/10478400903028540  
51  
52  
53 Duckitt, J., Wagner, C., du Plessis, I., & Birum, I. (2002). The psychological bases of ideology and  
54  
55 prejudice: Testing a dual process model. *Journal of Personality and Social Psychology*, 83,  
56  
57 75–93. doi: 10.1037//0022-3514.83.1.75  
58  
59  
60 Eysenck, H. J. (1954). *The psychology of politics*. London: Routledge & Keegan Paul.

- 1  
2  
3 Feldman, S., & Stenner, K. (1997). Perceived threat and authoritarianism. *Political Psychology*,  
4  
5  
6 4(4), 741–770.  
7
- 8 Fromm, E. (1941). *Escape from freedom*. New York, NY: Avon Books.  
9
- 10 Giampaglia, G., & Roccato, M. (2002). La scala di autoritarismo di destra di Altemeyer: Un'analisi  
11  
12 con il modello di Rasch per la costruzione di una versione italiana [Altemeyer's right-wing  
13  
14 authoritarianism scale: An analysis using the Rasch model for the construction of an Italian  
15  
16 version]. *TPM*, 9(2), 93-111.  
17  
18
- 19 Hale, C. (1996). Fear of crime: A review of the literature. *International Review of Victimology*,  
20  
21 4(2), 79-150.  
22  
23
- 24 Hartmann, E. (1991). *Boundaries in the mind: A new psychology of personality differences*. New  
25  
26 York, NY: Basic Books.  
27  
28
- 29 Hu, L., & Bentler, P. M. (1998). Fit indices in covariance structure modeling: Sensitivity to  
30  
31 unparametrized model misspecification. *Psychological Methods*, 3(4), 424-453.  
32  
33
- 34 Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003). Political conservatism as  
35  
36 motivated social cognition. *Psychological Bulletin*, 129, 339–375. doi: 10.1037/0033-  
37  
38 2909.129.3,339  
39  
40
- 41 Judd, C. M., McClelland, G. H., & Culhane, S. E. (1995). Data analysis: Continuing issues in the  
42  
43 everyday analysis of psychological data. *Annual Review of Psychology*, 46, 433-465.  
44  
45
- 46 Kinder, D. R., & Sears, D. O. (1985). Public opinion and political action. In G. Lindzey & E.  
47  
48 Aronson (Eds.), *The handbook of social psychology* (pp. 659-741). New York, NY: Random  
49  
50 House.  
51  
52
- 53 Klein, A., & Moosbrugger, H. (2000). Maximum likelihood estimation of latent interaction effects  
54  
55 with the LMS method. *Psychometrika*, 65(4), 457-474.  
56  
57
- 58 Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York, NY: Springer.  
59  
60

- 1  
2  
3 Lee, J. E. C., Gibson, S., Markon, M. L., & Lemyre, L. (2009). A preventive coping perspective of  
4 individual response to terrorism in Canada. *Current Psychology*, 28, 69-84. doi:  
5  
6 10.1007/s12144-009-9053-2  
7  
8  
9  
10 Little, T. D., Bovaird, J. A., & Widaman, K. F. (2006). On the merits of orthogonalizing powered  
11 and product terms: Implications for modeling interactions among latent variables. *Structural*  
12 *Equations Modeling: A Multidisciplinary Journal*, 13, 497-519. doi:  
13  
14 10.1207/s15328007sem1304\_1  
15  
16  
17  
18  
19 Marsh, H. W., Wen, Z. L., & Hau, K. T. (2004). Structural equation models of latent interactions:  
20 Evaluation of alternative estimation strategies and indicator construction. *Psychological*  
21 *Methods*, 9(3), 275-300.  
22  
23  
24  
25  
26 Mavor, K.I., Louis, W.R., & Sibley, C.G. (2010). A bias-corrected exploratory and confirmatory  
27 factor analysis of right-wing authoritarianism: Support for a three-factor structure. *Personality*  
28 *and Individual Differences*, 48, 28-33. doi: 10.1016/j.paid.2009.08.006  
29  
30  
31  
32  
33 McCrae, R. R. (1994). Openness to experience: Expanding the boundaries of factor V. *European*  
34 *Journal of Personality Psychology*, 8, 251-272. doi: 10.1002/per.2410080404  
35  
36  
37  
38 McCrae, R. R., & Costa, P. T. (1987a). Personality, coping, and coping effectiveness in an adult  
39 sample. *Journal of Personality*, 54, 385-405. doi: 10.1111/j.1467-6494.1986.tb00401.x  
40  
41  
42  
43 McCrae, R. R., & Costa, P. T. (1987b). Validation of the five-factor model of personality across  
44 instruments and observers. *Journal of Personality and Social Psychology*. 52(1), 81-90.  
45  
46  
47  
48 McCrae, R. R., & John, O. P. (1992). An introduction to the five-factor model and its applications.  
49 *Journal of Personality*, 60(2), 175-215.  
50  
51  
52  
53 Mirisola, A., Di Stefano, G., & Falgares, G. (2007). I processi duali ideologici nel contesto italiano  
54 [Ideological dual processes in the Italian context]. In F. Di Maria, G. Di Stefano, & G.  
55 Falgares (Eds.), *Psiche e società: La polis siciliana tra conservazione e trasformazione* [Mind  
56 and society: The Sicilian polis between conservation and transformation] (pp. 29-435).  
57  
58  
59  
60 Milano: Angeli.

- 1  
2  
3 Mirisola, A., Sibley, C. G., Boca, S., & Duckitt, J. (2007). On the ideological consistency between  
4  
5 right-wing authoritarianism and social dominance orientation. *Personality and Individual*  
6  
7 *Differences, 43*, 1851-1862. doi: 10.1016/j.paid.2007.06.006  
8  
9
- 10 Muthén, L. K., & Muthén, B. O. (1998). *Mplus user's guide*. Los Angeles, CA: Muthén & Muthén.  
11  
12
- 13 Nagoshi, J. L., Terrell, H. K., & Nagoshi, C. T. (2007). Changes in authoritarianism and coping in  
14  
15 college students immediately after the terrorist attacks of September 11, 2001. *Personality and*  
16  
17 *Individual Differences, 43*, 1722-1732. doi: 10.1016/j.paid.2007.05.010  
18  
19
- 20 Nunnally, J. C. (1978). *Psychometric theory*. New York, NY: McGraw-Hill.  
21
- 22 O'Brien, T. B., & deLongis, A. (1996). The interactional context of problem-, emotion-, and  
23  
24 relationship-focused coping : The role of the big five personality factors. *Journal of*  
25  
26 *Personality, 64*, 775-813. doi: 10.1111/j.1467-6494.1996.tb00944.x  
27  
28
- 29 Penley, J. A., & Tomaka, J. (2002). Associations among the Big Five, emotional responses, and  
30  
31 coping with acute stress. *Personality and Individual Differences, 32*, 1215-1228. doi:  
32  
33 10.1016/S0191-8869(01)00087-3  
34  
35
- 36 Peterson, B. E., & Gerstein, E. D. (2005). Fighting and flying: Archival analysis of threat,  
37  
38 authoritarianism, and the North American comic book. *Political Psychology, 26*(6), 887-904.  
39  
40
- 41 Raudenbush, S. W. & Bryk, A. S. (2002). *Hierarchical linear models*. London: Sage.  
42
- 43 Reich, W. (1933). *Die Massenpsychologie des Faschismus* [Mass psychology of fascism].  
44  
45 Copenhagen: Verlag für Sexualpolitik.  
46  
47
- 48 Rickert, E. J. (1998). Authoritarianism and economic threat: Implications for political behavior.  
49  
50 *Political Psychology, 19*(4), 707-720.  
51  
52
- 53 Robinson, W. S. (1950). Ecological correlations and the behavior of individuals. *American*  
54  
55 *Sociological Review, 15*(3), 351-357.  
56  
57
- 58 Sales, S. M. (1973). Threat as a factor in authoritarianism: An analysis of archival data. *Journal of*  
59  
60 *Personality and Social Psychology, 28*(1), 44-57.

- 1  
2  
3 Sales, S. M., & Friend, K. E. (1973). Success and failure as determinants of level of  
4 authoritarianism. *Behavioral Science*, *18*, 163-172. doi: 10.1002/bs.3830180304  
5  
6  
7  
8 Stenner, K. L. (2005). *The authoritarian dynamic*. New York, NY: Cambridge University Press.  
9  
10 Stevens, D., Bishin, B. G., & Barr, R. R. (2006). Authoritarian attitudes, democracy, and policy  
11 preferences among Latin American elites. *American Journal of Political Science*, *50*(3), 606-  
12 620.  
13  
14  
15  
16  
17 Sibley, C. G., & Duckitt, J. (2008). Personality and prejudice: A meta-analysis and theoretical  
18 review. *Personality and Social Psychology Review* *12*, 248-279. doi:  
19 10.1177/1088868308319226  
20  
21  
22  
23  
24 Sibley, C. G., & Duckitt, J. (2009). Big-five personality, social worldviews, and ideological  
25 attitudes: Further tests of a dual process cognitive-motivational model. *Journal of Social*  
26 *Psychology*, *149*, 545-561. doi: 10.1080/00224540903232308  
27  
28  
29  
30  
31 Steiger, J. H. (1980). Structural model evaluation and modification: An interval estimation  
32 approach. *Multivariate Behavioral Research*, *25*(2), 173-180.  
33  
34  
35  
36 Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis.  
37 *Psychometrika*, *38*(1), 1-10.  
38  
39  
40  
41 Van Hiel, A., Cornelis, I., & Roets, A. (2007). The intervening role of social worldviews in the  
42 relationship between the five-factor model of personality and social attitudes. *European*  
43 *Journal of Personality*, *21*, 131-148. doi: 10.1002/per.618  
44  
45  
46  
47  
48 Van Hiel, A., & De Clercq, B. (2009). Authoritarianism is good for you: Right-wing  
49 authoritarianism as a buffering factor for mental distress. *European Journal of Personality*,  
50 *23*, 33–50. doi: 10.1002/per.702  
51  
52  
53  
54  
55 Van Hiel, A., & Mervielde, I. (2004). Openness to experience and boundaries in the mind:  
56 Relationships with cultural and economic conservative beliefs. *Journal of Personality*, *72*,  
57 659–686. doi: 10.1111/j.0022-3506.2004.00276.x  
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## Footnotes

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1. The alpha of the Openness, of the Extraversion and of the Agreeableness factors were under the .70 value, i.e. the threshold below which an  $\alpha$  is conventionally considered as satisfactory (Nunnally, 1978). However, like in Dallago and Roccato's (2010) research, these low  $\alpha$ s depended more on the small number of items we used to measure the Big Five factors than on a weak correlation among them (Openness mean inter-items correlation:  $r = .25$ ; Agreeableness mean inter-items correlation:  $r = .29$ , Extraversion mean inter-items correlation:  $r = .29$ ).

2. In Figure 2 we did not report the standardized paths in that they are unavailable for this kind of models.

3. As suggested by an anonymous Reviewer, given the unbalanced distribution of gender in our sample, we performed supplementary analyses keeping gender under control. Obtained results on the relations between personality, DWB, and RWA were analogous to those we chose to publish. Readers interested in examining them may contact the corresponding author.



Table 1.

Correlations among the variables

	1	2	3	4	5	6	7
1. Right-wing authoritarianism	-						
2. Dangerous world beliefs	.52***	-					
3. Conscientiousness	.13**	.06	-				
4. Openness	-.41***	-.33***	.04	-			
5. Neuroticism	.05	.29***	-.03	-.06	-		
6. Extraversion	-.02	-.05	.21***	.24***	-.10*	-	
7. Agreeableness	.05	.01	.08	.11*	-.01	.25***	-

Note. \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

## Figure captions

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*Figure 1.* Mediation model predicting RWA.

*Figure 2.* Moderation mediation model predicting RWA.

*Figure 3.* Moderating effect of Openness on the association between Dangerous World Beliefs and RWA.

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Figure 1 (all paths:  $p < .01$ . Standardized paths are displayed)

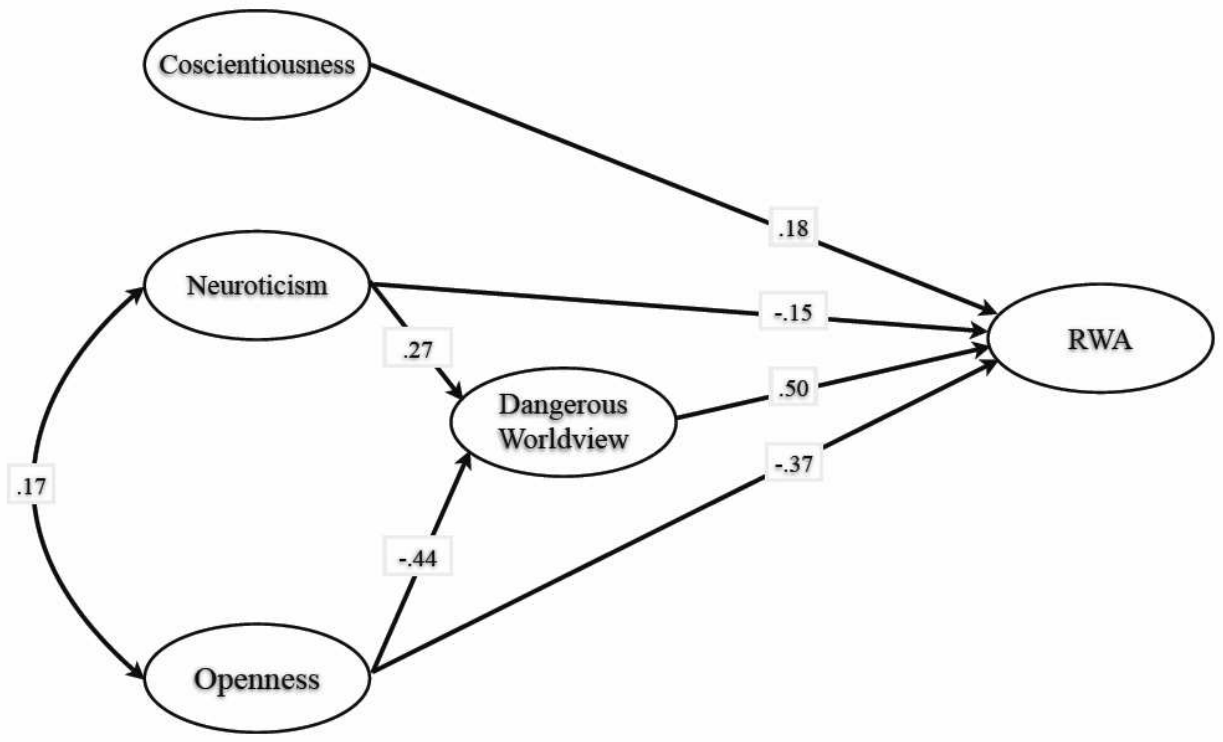
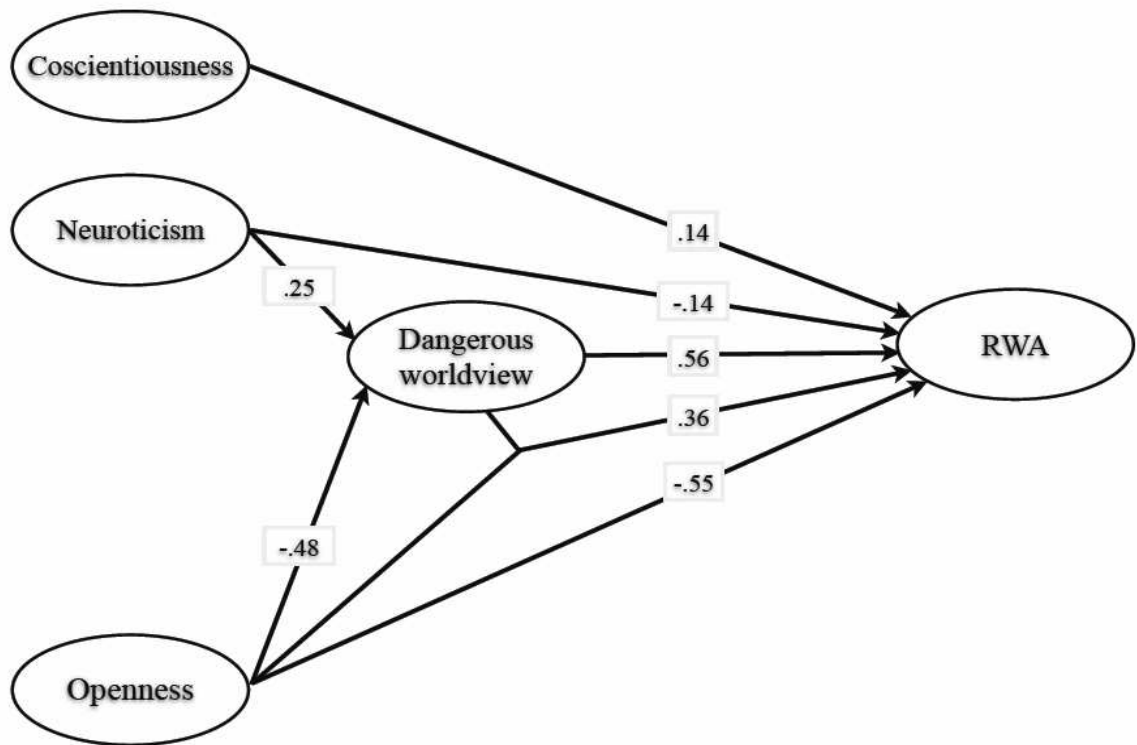
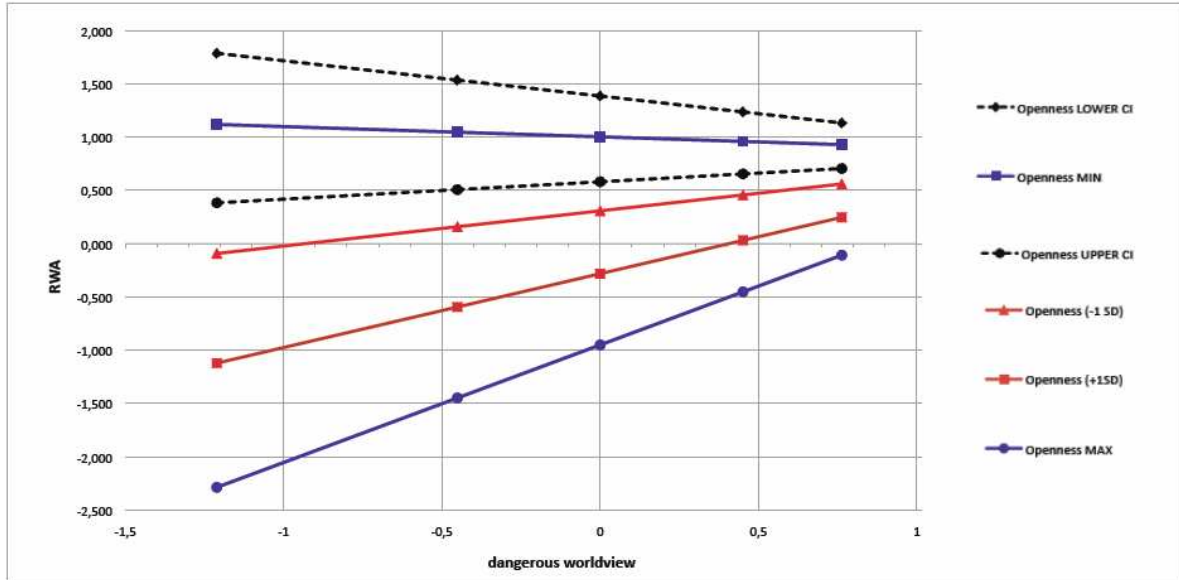


Figure 2 (all paths:  $p < .01$ )

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Figure 3



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