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Societal threat to safety, compensatory control, and right-wing authoritarianism

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Societal threat to safety, compensatory control, and right-wing authoritarianism

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Abstract

We analyzed directly and indirectly the relationships between societal threat to safety, perceived control, and the increase in right-wing authoritarianism (RWA) in two studies. In Study 1 (national sample of the Italian population, *N* = 1,169) we performed a longitudinal analysis structured into three waves (January 2003, September 2004, and January 2005). A moderated regression analysis showed that RWA increased from 2003 to 2005 as a function of perceived societal threat to safety more among low than among high RWA scorers. In experimental Study 2 (Italian university students, *N* = 131) a moderated mediation model showed loss of perceived control to mediate the relation between societal threat to safety and the increase in RWA, but among low authoritarians only. Limitations, implications and possible developments of this research are discussed.

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Societal threat to safety, compensatory control, and right-wing authoritarianism

Consistent with the idea that perceiving the social world as characterized by randomness and chaos can be a very stressful experience (Janoff-Bulman, 1989), psychologists from many different theoretical and epistemological positions converge in postulating a basic existential motivation to defend from such perception (e.g. Adler, 1946; Heider, 1958; Lefcourt, 1973). This motivation—which tends to vary across cultures (e.g. Ji, Peng, & Nisbett, 2000) and situations (e.g. Burger, 1989)—leads human beings to perceive themselves as being able to control their environment. Research showed that lack of perceived control leads to high arousal, anxiety, and even to see perceptual patterns in incoherent sets of stimuli (Glass, Singer, Leonard, Krantz, Cohen, et al., 1973; Luck, Pearson, Madden, & Hewett, 1999; Whitson & Galinsky, 2008).

From a social and political psychology point of view, in an interesting series of papers Kay and colleagues (Kay, Gaucher, Napier, Callan, & Laurin, 2008; Kay, Whitson, Gaucher, & Galinsky, 2009; Kay, Shepherd, Blatz, Chua, & Galinsky, 2011) recently developed and empirically validated the Compensatory Control Mechanism (CCM). Relying on this mechanism, people can cope with the existential threat coming from having—chronically or in the here and now—low levels of perceived control over their environment by endorsing external systems that impose structure and order in their social world. According to Kay and colleagues, the main compensatory external systems are believing in a controlling God and in the government: “Given the clear rules, guidelines, norms, and structure formal systems provide, governments and organizational systems, much like religions, hold the potential to help people imbue their worlds with order and control” (Kay et al., 2008, p. 21). Consistent with Rothbaum, Weisz, and Snyder (1982; see also Morling & Evered, 2006; Rudolph, Denning, & Weisz, 1995), resorting to such compensatory systems should be a beneficial strategy to cope with perceived lack of primary control by helping people to perceive a vicarious control over their world. According to them, the most efficient strategy people can rely on— whenever their attempts to directly control their world fail—is to submit to powerful others.

The literature on perceived control shows some intriguing commonalities with the most recent conceptions about right-authoritarianism (RWA), i.e. the covariation of three attitudinal clusters: (a) *authoritarian submission* (a strong tendency to submit to authorities, which are perceived as established and legitimate in the society in which one lives); (b) *authoritarian aggression* (a general aggressiveness, perceived to be positively sanctioned by established authorities, directed against various people); and (c) *conventionalism* (a strong tendency to adhere to the social conventions, which are perceived as endorsed by the society and its established authorities) (Altemeyer, 1996).

Indeed, according to the literature on the CCM, people lacking perceived control over their social world can compensate for such perception by adhering to religion and government, i.e. to established societal authorities (Kay et al., 2008). According to the literature on authoritarianism, RWA accounts for people's tendency to do so (Altemeyer & Hunsberger, 1993). Moreover, according to Duckitt (2001), RWA should not be considered as a stable personality characteristic; on the contrary, it should be conceived as an ideological variable expressing situational and dispositional motivational goals of order, social control, and security. This dynamic conception of RWA was empirically validated in a five-month longitudinal study performed by Sibley, Wilson, and Duckitt (2007), in which RWA significantly increased as a function of perceiving the world as a threatening place.

According to the literature, situational threat elicits out-group derogation among authoritarians (see the differential moderation hypothesis, Duckitt & Sibley, 2009). However, we argue that such threat can produce an increase in RWA as a compensatory control mechanism among people with low levels of authoritarianism. We based this idea on Dallago and colleagues' studies (Dallago & Roccato, 2010; Dallago, Mirisola, & Roccato, 2011, 2012), which showed that perceived societal threat stemming from criminality—which undermines people's perceived control over their social world (Jackson, 2011; Perry & Sibley, 2010)—increased RWA among people with high, but not among those with low, Openness to experience. RWA and Openness to experience are not synonymous; however, they systematically show significant, although low, negative correlations (see Akrami & Ekehammar, 2006; Altemeyer, 1996; Duriez & Soenens, 2006; Ekehammar, Akrami, Gylje, & Zakrisson, 2004; Heaven & Bucci, 2001; Lippa & Arad, 1999; Peterson & Lane, 2001; Peterson, Smirles, & Wentworth, 1997; Van Hiel, Cornelis, & Roets, 2007; Van Hiel, & Mervielde, 2004). Thus, Dallago and colleagues' studies supported the idea that people with low RWA levels (which tend to be high in Openness to experience) may try to compensate the feeling of uncontrollability of the social world stemming from being exposed to threats such as criminality by increasing their level of authoritarianism, in order to be provided with a set of strong and explicit moral norms, prescribing how the society should work.

To summarize, based on the literature above, we assumed that RWA could be a strategy people rely on to compensate for lack of perceived control stemming from societal threat to safety. Moreover, we supposed that resorting to such strategy should be particularly appealing for people low vs. high in RWA, as they should have a higher need to compensate threat and lack of personal control. We empirically tested these ideas in two studies. In longitudinal Study 1 we tested the hypothesis that, under conditions of threat to safety, RWA should increase among low RWA scorers, but not among high RWA scorers. In experimental Study 2 we tested an expanded version of this hypothesis, linking threat, perceived control, and RWA.

Study 1

Goals and Hypothesis

In Study 1 we aimed to answer the following research question: Does RWA actually change, *within the same individuals*, as a consequence of perceived societal threat to safety? Based on the literature above, we hypothesized RWA to increase under conditions of perceived threat to safety among low RWA scorers, but not among high RWA scorers.

Method

We performed a secondary analysis of the longitudinal data collected by the Osservatorio del Nord Ovest (North-Western Observatory, www.nordovest.org), a research institute of the University of Torino, between January 2003 and January 2005. Since 2002, a panel extracted from the Italian population over 14 years old was surveyed three times a year about a number of social issues. In the following three waves data on RWA and on perceived societal threat to safety were available: (a) January 2003 (N = 5,545, response rate = 43.0%), (b) September 2004 (N = 5,558, response rate = 68.5%), and (c) January 2005 (N = 4,793, response rate = 62.9%).

Each wave's participants have been interviewed via mail, and were representative of the Italian population according to gender, age, and education. However, due to the panel attrition which inevitably characterizes longitudinal research (see Ribsl, Walton, Mowbray, Luke, Davidson, & Bootsmiller, 1996; Tourangeau & Ye, 2009), just 1,169 people participated to all of these three waves (women: 42.08%, mean age = 52.38, *SD* = 15.68, mean years of education = 10.89, *SD* = 3.81). The present study was thus focused on them. As concerns age and education, this sample nicely approximated the Italian population, compared to which our participants were just 2.94 years older and showed 1.74 more years of education, even if women were somewhat underrepresented (42.08 in our sample vs. 52.15 in the Italian population).

Measures

In all the waves, participants' gender, age, and education were available. To keep under control the heterogeneity of our dataset, much higher than that characterizing the mainstream research about RWA, which is typically performed on student samples, we used them as control variables, taking into account their value in January 2003.

In January 2003, four five-category items from Giampaglia and Roccato's (2002) Italian version of Altemeyer's (1996) RWA scale were available. Given their small number, it is far from surprising that their alpha was (slightly) below the usual .70 threshold, α = .63. However, their mean correlation, *mean r* = .30, was satisfactory, and higher than those stemmed from previous Italian research (see for instance Giampaglia & Roccato, 2002; Dallago, Cima, Roccato, Ricolfi, & Mirisola, 2008; Dallago & Roccato, 2010; Dallago, Mirisola, & Roccato, 2011, 2012; Mirisola, Sibley, Boca, & Duckitt, 2007). Thus, we computed a synthetic RWA index at T_1, as the mean of these four items, ranging from 1.00 to 5.00.

In January 2005, six more five-category items from the same scale were available, $\alpha = .72$ Again, we computed a synthetic RWA index at T_2, as the mean of these six items, ranging from 1.00 to 5.00. The items we used to assess RWA in our second wave were different from those we used in our first wave. However, a pilot study, performed on 353 students at the University of Torino, previously showed that the correlation of our operationalizations of RWA at T_1 and of RWA at T_2 was a satisfactory $r = .80$, $p < .001$. Thus, we considered them as parallel forms of the same measurement tool.

As concerns perceived societal threat to safety, we took from the September 2004 wave the item “Think of micro-criminality: How would you define the situation regarding this problem in Italy?”. This four-category item (1 = not dangerous at all; 4 = very dangerous) item was Dallago and Roccato’s (2010) operationalization of perceived societal threat to safety.

Data analysis

To test whether RWA at T_1 moderated the effect exerted on RWA at T_2 by perceived threat we conducted a hierarchic moderated multiple regression (Aiken & West, 1991; Cohen, Cohen, West, & Aiken, 2003) using the DeducerMMR R plugin (Mirisola & Seta, 2011; Mirisola, Seta, Gentile, & La Guardia, 2011). In the first step we entered our control variables, RWA at T_1, and perceived societal threat to safety. We dummy coded gender (1 = woman), while we centered the other predictors. In the second step we added the interaction between RWA at T_1 and perceived societal threat.

Results

Table I shows the descriptive statistics for our variables and their correlations.

As shown in Table II, in the first step of our regression RWA at $T_{1,}$ age, education, and perceived societal threat to safety significantly fostered RWA at T_2, $R^2 = .36$. After adding the first order interaction between RWA at T_1 and perceived threat, the model’s R^2 rose to .37. This increase was statistically significant, $F(1, 1162) = 7.05$, $p < .01$. Based on Cohen et al. (2003), to depict this interaction graphically we first z-scored the RWA change. Subsequently, we estimated the means for participants low (-1 *SD*) and high (+ 1 *SD*) in RWA at T_1 (see Figure 1). Simple slopes analysis showed that perceived societal threat to safety strongly predicted RWA at T_2 among participants with low levels of authoritarianism at T_1, simple slope = .278, $t(1162) = 6.41$, $p < .001$, and much more weakly at high levels of authoritarianism at T_1, simple slope = .118, $t(1162) = 2.51$, $p < .05$.[1] The moderation effect we detected was plausibly not the consequence of a ceiling effect displayed among high RWA scorers. Indeed, just the 0.8% of our participants showed the theoretical maximum of RWA at T_1. Most importantly, parallel analyses, performed using the Tobit model (Austin, Escobar, & Kopec, 2000; McBee, 2010)—which leads to robust results when managing floor or ceiling effects; based on Cox and Oakes (1984) we chose the RWA empirical maximum as censoring point) —gave results (available upon request) identical to those we presented.

Discussion

In this study we tested the hypothesis that in condition of perceived societal threat to safety low, but not high, RWA scorers increase their RWA level as a consequence of societal threat to safety. Results revealed that both low and high RWA scorers increased their RWA level in conditions of perceived threat. However, among the latter the increase was much weaker than among the former, and plausibly reached statistical significance just because of the large *N* of our dataset. Thus, as a whole, we feel like concluding that our hypothesis was substantially verified.

These results were fully consistent with Van Hiel and De Clercq (2009), according to which RWA should be considered as a resource people may efficiently use to cope with stress. Indeed, these authors found that RWA reduced both the impact of a distressed personality on depression and on the negative consequences of 21 potentially stressful life events participants actually experienced in the 24 months preceding the survey. Discussing these findings, Van Hiel and De Clercq concluded that RWA should be considered as a “good for the self” construct (for a conception of RWA as a “good for the ingroup” construct, see Kessler & Cohrs, 2008), in that it “buffers the effects of facilitators of mental distress on actual experienced mental distress” (p. 47; however, for results inconsistent with this conclusion, see Duriez, Klimstra, Luyckx, Beyers, and Soenens’, 2012). Moreover, our results have been substantially consistent with those stemming from Dallago and colleagues’ (Dallago & Roccato, 2010; Dallago, Mirisola, & Roccato, 2011, 2012) converging cross-section analyses on the moderator role of the relation between perceived threat to safety and RWA played by Openness to experience, a personality trait which negatively correlates with RWA. Finally, they indirectly supported the idea of linking the literature on RWA with that on the CCM, in that psychological research showed that threat stemming from criminality undermines people’s perceived control over the social world (Jackson, 2011; Perry & Sibley, 2010). Unfortunately, measures of perceived control were not available in the dataset we analyzed.[2]

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[1] Based on Mavor, Louis, and Sibley (2010), we performed a confirmatory factor analysis in which RWA was modeled with three item parcels (conventionalism, authoritarian aggression, and authoritarian submission, respectively). The model showed a good fit (*CFI* = .97, *TLI* = .93, *RMSEA* = .07). Thus, we felt allowed to conduct parallel analyses measuring RWA by giving equal weight to the items assessing the construct’s three attitudinal clusters. Obtained results, available upon request, were substantially identical to those we presented.

In conclusion, this study—being based on secondary analysis— allowed us to analyze the links between threat and RWA using a longitudinal approach in a wide Italian national sample, which closely resembled the Italian population as concerns socio-demographic characteristics. This was particularly intriguing, since, to our knowledge, just few longitudinal studies on RWA have been performed (Asbrock, Sibley, & Duckitt, 2010; Asbrock, Christ, Duckitt, & Sibley, 2012; Heaven, Ciarrochi, & Leeson, 2011; Liu, Huang, & McFedries, 2008; Peterson & Lane, 2001; Sibley, Wilson, & Duckitt, 2007), and none of them empirically tested any moderation hypothesis. Our longitudinal analysis has had a 2-year span. It would be probably more appropriate to use shorter intervals among the waves. However, even with such long intervals, we have found theoretically sound outcomes: In our opinion, this witnessed the robustness of our results. Moreover, the field nature of our data and the high heterogeneity of our sample gave our results pretty strong ecological validity. However, on the negative side, we could not measure participant's perceived control over their social world, and thus we gained just indirect evidence on the plausibility of linking the literature on RWA to that on the CCM. To overcome these limitations, we performed Study 2 using an experimental approach.

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[2] It should be noted that in this study we worked on perceived, and not on actual, threat to safety. This should not be considered a strong limitation, as ecological analysis shows that variables expressing concern about crime as a social problem are strongly correlated to the actual crime spread in the area people live in (e.g. Miceli, Roccato, & Rosato, 2004). As a matter of fact, in parallel analyses (results available upon request) we tried to fully enjoy the high quality of our dataset testing a multilevel model aimed at analyzing the effect exerted on the increase in RWA by the cross-level interaction between RWA at T_1 and the crime rate of the area where our participants lived in. Unfortunately, such a cross-level interaction did not gain statistical significance. However, the structure of our data allowed us to use level-2 data at a plausibly suboptimal level, i.e. at the county level (in Italy there are 110 counties, which are local governmental entities whose jurisdictional territories usually include numerous towns geographically surrounding one main city). We believe that this level of aggregation—which mixed areas characterized by very different actual crime rates (Russo, Roccato, & Vieno, 2011)— was far from satisfactory. In fact, multilevel analysis tends to be used at the block or at the neighborhood level (e.g. Perkins, Meeks, & Taylor, 1992), in order to take into account homogeneous ecological clusters. Thus, before closing the book on the multilevel prediction of RWA, more appropriate ecological data should be used.

Study 2

Goals and Hypothesis

This study tackled the following research question: Does loss of perceived control over participants' social world help explain and qualify the effect found in Study 1? Based on the literature above, we hypothesized that (a) threat should foster loss of perceived control, and (b) loss of control perception should lead to an RWA increase among participants with initial low levels of RWA. Thus, we hypothesized participants with initial low, but not those with initial high, RWA scores, to bolster societal order (Shepherd, Kay, Landau, & Keefer, 2011) by increasing their RWA level as a function of the decrease of perceived control stemming from threat.

Method

We built an experiment using Lau and Redlawsk's (2001) Dynamic Process Tracking Environment (DPTE). The DPTE is a computer-based dynamic information board developed to study decision making in complex social situations, originally developed and applied to study electoral campaign environments. The DPTE is a revision of the traditional static information board developed to gain more external validity by better mimicking the flow of information in a real world social context. This technique allows tracing the decision-making process as it happens while the information label scrolls down on a computer screen: Thus, a limited number of labels are visible at any time. Participants can access the information they are interested in by clicking on the label. While reading the detailed information the scrolling continues in the background.

We chose to collect our data by the DPTE to disclose our goals and to provide our study with external validity. We used the DPTE to simulate a mock electoral campaign. Our experimental procedure included four main stages: (a) a pre-experimental questionnaire; (b) a 2-minutes practice session; (c) a 9-minutes mock electoral campaign; and (d) a post-experimental questionnaire. The electoral campaign (see details below) we simulated was built based on Redlawsk (2004; Redlawsk, Civettini, & Emmerson, 2010).

Participants

One hundred and thirty-one students (49 men, mean age = 22.76, *SD* = 5.51) from the University of Torino, Italy, participated in our study. Ninety of them completed the tasks in a social psychology lab, while the other 41 did so while at home, by connecting to the website http://dpte.polisci.uiowa.edu/, where the DPTE can be used. Preliminary analyses showed that this design variable did not affect our results. Thus, we did not take it into consideration in the analyses presented.

Pre-experimental questionnaire[3]

RWA at T_1 was assessed using ten four-category balanced items randomly chosen from those of Giampaglia and Roccato's (2002) Italian version of Altemeyer's (1996) RWA Scale. Based on $\alpha = .72$, we computed participants' RWA score at T_1 as the mean of these items, which ranged between 1.10 and 3.00.

Perceived control at T_1 was assessed by the six items used by Kay et al. (2008) (e.g.: "To a great extent my life is controlled by accidental happenings" and "The things that occur in my life are mostly a matter of chance"). Based on $\alpha = .78$, we computed participants' perceived control in their life as the mean of these six items. High scores expressed high perceived control.

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[3] Beyond those we presented in this section, in the pre- and the post-experimental questionnaires we asked our participants more questions. Readers interested in examining the full questionnaires may ask them to the corresponding author.

Dangerous World Beliefs at T_1, we used in supplementary analyses (see below), were assessed by averaging 10 balanced items ($\alpha = .81$) randomly chosen from the Italian version of Altemeyer's Dangerous World Beliefs Scale (Mirisola, Di Stefano, & Falgares, 2007).

Experimental session

We created a mock electoral campaign with four candidates competing for the role of Italian Prime minister in the 2020 general election. After reading an initial announcement (see Appendix A), participants experienced the political campaign: Information about the candidates running for the election as well as non-political information (such as generic information about the country) was available. We introduced the experimental manipulation in the middle of the campaign. A randomly selected group of participants ($n = 62$) read a secure scenario, in which Italy in 2020 was presented as one of the most secure nations in the world, and the Italians as believing to live in one of the best periods of the human history. The other participants ($n = 69$) read an insecure scenario, which depicted Italy in 2020 as a very dangerous place, in which home burglaries are a common experiences and people avoid walking alone at night because armed squads control many cities districts and go around assaulting and robbing. The scenarios' full texts are presented in Appendix B. Right after the experimental manipulation the electoral campaign continued. At the end of the campaign participants were asked to cast their vote.

Post-experimental questionnaire

RWA at T_2 was assessed using other 10 balanced items randomly chosen from Giampaglia and Roccato's (2002) Italian version of Altemeyer's (1996) RWA Scale. Based on $\alpha = .79$, we computed participants' RWA at T_2 scores as the mean of such 10 items. The scores ranged from 1.00 to 2.80. A pre-test, performed on 242 students from the University of Torino, showed that our two RWA measures could be considered as parallel forms of the same measurement tool, $r = .81$, $p < .001$.

Participants' perceived control on their life at T_2 was measured using the same 6 items we used in the pre-experimental session. Based on $\alpha = .89$, we computed participants' scores as the mean of these items. Building on Williams, Zimmerman, Rich, and Steed (1984a, 1984b), in our analyses we examined the mediating effect of the loss of perceived control using perceived control's residual gain score estimate. The residual gain score estimate is the difference between an actual and a predicted dependent variable (control at T_2), computed as the residual of a linear regression equation with the pretest score (in our case, perceived control at T_1) as predictor variable and the posttest score (in our case, perceived control at T_2) as dependent variable.

As manipulation check, we asked our participants to answer the item on perceived societal threat to safety we used in Study 1. Moreover, we asked them to answer other 10 balanced items randomly chosen from Mirisola and colleagues' Italian version of Altemeyer's Dangerous World Beliefs Scale (Mirisola, Di Stefano, & Falgares, 2007). Based on $\alpha = .92$, we averaged them to compute our participants' Dangerous World Beliefs scores. This scale has also been used to calculate residual gain scores of Dangerous World Beliefs between T_1 and T_2 (see below).

Finally, we asked our participants to fill in a standard socio-demographic form.

Results

Table III shows the descriptive statistics for our variables and their correlations.

Before testing our hypotheses, we checked the effectiveness of our manipulation. The participants exposed to the threatening scenario showed higher perceived societal threat to safety scores ($M = 3.19$, $SD = 2.05$) and higher Dangerous World Belief scores ($M = 4.43$, $SD = 1.12$) than those exposed to the secure scenario (M's = 2.05, $SD = .50$, and 2.57, $SD = .53$, respectively). The two differences were statistically significant, $t(129) = 6.096$, $p < .001$, $\eta^2 = .224$, and $t(129) = -5.772$, $p < .001$, $\eta^2 = .205$. Thus, we concluded that our manipulation actually influenced participants' sense of menace in the expected direction.

Using Hayes' (2012) PROCESS macro (model 14), a moderated mediation analysis (Preacher, Rucker, & Hayes 2007) was performed in order to assess the indirect effect of being exposed to the insecure vs. the secure scenario on the RWA increase through the mediation of the change of perceived control over the social world, at different RWA levels at T_1 (i.e., at ± 1 standard deviation from the mean). Based on Cohen et al. (2003), we centered our continuous variables, while the variable expressing being exposed to the threatening vs. the secure scenario was included using an unweighted effect coding. Regression results for our moderated mediation model are reported in Table IV.

Consistent with our hypothesis (see Figure 2), being exposed to the threatening vs. the secure scenario predicted a reduction of perceived control, which, in turn, significantly influenced RWA at T_2. However, the latter effect was moderated by RWA at T_1. Simple slopes analysis showed that the loss of perceived control fostered RWA at T_2 among low RWA scorers at $T_{1,}$ simple slope = - 0.18, $t(126) = -2.25$, $p < .05$, but not among participants who, at $T_{1,}$ scored high in RWA, simple slope = 0.07, $t(126) = 1.21$, $p = .23$ (see Figure 3). Bootstrapping estimation (5000 bootstrap samples) showed a significant indirect effect exerted by threat for participants with low RWA at T_1 (95% CI .003, .047), whereas no indirect effect was found for participants with high RWA at T_1 (95% CI -.030, .004).[4]

Like in Study 1, the moderation effect we have detected did not seem to be the consequence of a ceiling effect displayed among high RWA scorers. Indeed, top RWA scorers showed an empirical maximum of RWA (3.00 and 2.80 at T_1 and T_2, respectively) lower than the theoretical maximum of the scale (4), with a maximum increment of .70 between RWA at T_1 and RWA at T_2. Most importantly, parallel analyses, performed using the Tobit model (Austin, Escobar, & Kopec, 2000; McBee, 2010; based on Cox and Oakes, 1984 we chose the RWA empirical maximum—2.8—as censoring point) led to results (available upon request) analogous to those presented.

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[4] Parallel analysis (performed using model 59 of the PROCESS macro) showed that RWA at T_1 did not moderate both the relations between being exposed to the threatening vs. secure scenario and RWA increase, and between being exposed to the threatening vs. secure scenario and loss of perceived control, respectively (results available upon request). Moreover, like in Study 1, a confirmatory factor analysis of a three-dimensional model based on Mavor, Louis, and Sibley (2010) model showed a good fit (*CFI* = .96, *TLI* = .92, *RMSEA* = .10). Subsequent parallel analyses, performed giving equal weight to the items assessing RWA's three attitudinal clusters, led to results, available upon request, substantially analogous to those we chose to present.

Supplementary analyses

In supplementary analyses—conducted on request of an anonymous reviewer—we could not replicate directly the effect we detected in Study 1. Indeed, RWA at T_1 did not moderate the relationship between scenario and RWA at T_2 when we used the threatening vs. secure scenario as predictor, $p = .79$. This result was far from surprising, in that previous research showed that threat, when experimentally manipulated via a scenario depicting future conditions of the nation where participants lived, influenced RWA not directly, but via the mediation of dangerous world beliefs (Duckitt & Fischer, 2003).

To test this interpretation, we explicitly integrated Duckitt's (2001) and Kay and colleagues' (2008) models. To do so, we first replicated the interaction effect of Study 1 using the residual gain score of DWB as predictor on the 130 participants who answered the DBW scale both in the pre-experimental and in the post-experimental questionnaires. In the first step of our moderated regression, RWA at T_2 was significantly predicted by RWA at T_1, $\beta = .80$, $t(126) = 14.81$, $p < .001$, but not by the DWB change, $\beta = .04$, $t(126) = 0.77$, $p = .44$. After adding the first order interaction between RWA at T_1 and DWB change, which significantly influenced RWA at T_2, $\beta = -.11$, $t(125) = -1.99$, $p < .05$, the model's R^2 rose to .65. This increase was statistically significant, $F(1, 125) = 3.95$, $p < .05$. Like in Study 1, simple slopes analysis showed that DWB predicted RWA at T_2 among participants with low levels of authoritarianism at T_1, simple slope = .15, $t(125) = 2.06$, $p < .05$, but not at high levels of authoritarianism at T_1, simple slope = - .04, $t(125) = -.73$, $p = .47$.

Then, using MPlus (ML estimator) we reanalyzed the model depicted in Figure 2 entering the DWB residual gain score as mediator of the relation between threatening scenario and control perception change. The new model (see Figure 4) showed a good fit, *CFI* = .96, *TLI* = .93 , *RMSEA* = .10. Bootstrapping (5000) estimate of the indirect effect showed that the DWB change fully mediated the relationship between threatening scenario and control perception change, indirect effect = - .16, 95% *CI*: - .27, -.06. Moreover, like happened in the model depicted in Figure 2, RWA at T_1 moderated the relationship between control perception change and RWA at T_2. No significant interaction effects on RWA at T_2 were found between RWA at T_1 on the one hand and DWB change and threatening vs. secure scenario on the other hand (results available upon request).

Discussion

In this study we have fine-tuned the results stemmed from Study 1 and those available in the literature (Dallago & Roccato, 2010; Dallago, Mirisola, & Roccato, 2011, 2012; Shepherd et al., 2011), showing that the link between societal threat and RWA at T_2, beyond being moderated by people's initial level of RWA, is mediated by a reduction in perceived control. As a whole, consistent with our hypothesis, experimentally induced societal threat reduced participants' perceived control, which in turn fostered RWA among low, but not among high, RWA scorers. These results have been the first ones linking explicitly the literature on the origins of RWA with that on the Compensatory Control Mechanism (Kay et al., 2008), helping to understand the processes in action when people try to cope with the distress stemming from living in a threatening world by increasing their RWA level. Due to the fact that our manipulation threat was embedded in an environment that was much more complex than those usually used in experimental research on RWA (e.g. Altemeyer, 1988; Duckitt & Fisher, 2003; Sales & Friend, 1973), we feel pretty confident about the ecological validity of obtained results.

General discussion

In this research we aimed at linking theoretically and empirically two literatures. On the one hand, that on the Compensatory Control Model (Kay et al., 2008; Kay et al., 2009; Kay et al., 2011), according to which people's motivation to perceive themselves as able to control their social world leads them to resort to compensatory external sources of control (mainly God and the government) when feeling unable to control their world directly. On the other hand, the most recent literature on the links between threat and right-wing authoritarianism, according to which the latter construct should be considered as a "good for the self" (Van Hiel & De Clercq, 2009) ideological variable (Duckitt, 2001), which may change its level as a function of (perceived or actual) societal threat (Sibley et al., 2007), mainly among low RWA scorers (Dallago & Roccato, 2010; Dallago et al., 2011, 2012). In Study 1 we showed perceived societal threat to safety to lead to an RWA increase mainly among low RWA scorers. In Study 2 we showed the change in perceived control over participants' social world to mediate the link between threat and RWA among low RWA scorers only.

In spite of relevant methodological differences (Study 1 was based on a two-year longitudinal field survey, while Study 2 was based on an experiment performed in a psychology lab) and different operationalization of threat we used (in Study 1 we measured perceived societal threat to safety, while in Study 2 we experimentally manipulated such threat), our studies led to converging results. This supported the robustness of the conclusions we have drawn. Moreover, the methodological approach we have used allowed us to give a dynamic look, within the same participants, both as concerns the changes in RWA and (just in Study 2) the changes in perceived control. As a whole, our study showed that RWA can be considered as a card people (especially those initially low in this variable) can strategically choose to play in response to stressing and/or threatening external circumstances that decrease control perception.

Studies performed on the differential moderation hypothesis (Duckitt & Sibley, 2009) showed situational threat to foster outgroup derogation among high, but not among low, RWA scorers (e.g. Cohrs & Asbrock, 2009; Cohrs & Ibler, 2009; Dru, 2007; Feldman & Stenner, 1997; Rickert, 1998; Stenner, 2005). We believe our result, far from being in contradiction with them, should be considered as complementary to those stemmed from previous research. Indeed, our studies and those testing the differential moderation hypothesis analyzed different outcomes, i.e. RWA at T_2 and prejudice, respectively. Moreover, in Study 2 we showed threat to foster a decrease in perceived control among both high and low RWA scorers. The literature showed people high in RWA to try to cope with situational menace resorting to a heightened intergroup bias, which can be considered the consequence of "self-protective, defensive motivational needs for control and security" (Duckitt, 2001, p. 85). Our studies showed that people low in RWA try to compensate the loss of control stemming from threat by increasing their RWA level, i.e. becoming similar to their authoritarian counterparts. Future longitudinal research, performed by repeatedly threatening high and low RWA scorers and measuring both their RWA trend and their prejudice towards outgroups, will be germane.

Four main conclusions can be drawn from our research. First, as concerns RWA, obtained results were consistent with the conception (see Duckitt, 2001) of this construct as an ideological variable, and inconsistent with the conception of authoritarianism as a stable personality (or character) trait, which, beyond characterizing the first studies on this topic (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950; Fromm, 1941; Reich, 1933), at present is still spread in the literature (e.g. Altemeyer, 1996). Second, as concerns the origins of RWA, our research, focusing on perceived control as mediator and the initial RWA level as a moderator of the links between threat and RWA, helped fine-tuning the literature on the threat-RWA relation (e.g. Altemeyer, 1988; Feldman & Stenner, 1997; Rickert, 1998; Sales & Friend, 1973; Stevens, Bishin, & Barr, 2006). Third, given that RWA accounts for people's tendency to submit to societal authorities (Altemeyer, 1996), our study helped expanding the literature on the CCM, by suggesting that God and the government—i.e. the two sources of external control which, according to Kay and colleagues (2008), people may resort to in order to gain compensatory control over their social world—should be considered as special cases of a more general external source of perceived control, represented by established authorities. Fourth, we have confirmed the idea that moderation analyses may improve research on authoritarianism: Indeed, according to the methodological literature, the identification of moderators of the relation between variables indicates the degree of sophistication and maturity of a field of investigation (Aguinis, Boik, & Pierce, 2001; Judd, McClelland, & Culhane, 1995). Some years ago, Sibley and Duckitt (2008) underscored the need for research on the interactions between the predictors of RWA. This article could be considered as a step in satisfying this need.

The conception of RWA as a psycho-political mechanism people can resort to in order to compensate for a severe loss of personal control over their social world resembles Fromm's (1941) classic idea of authoritarianism as a mechanism people can use to escape from a freedom they feel unable to manage because of the lack of internal resources. However, Fromm conceived authoritarianism as a stable character trait people developed in their childhood as a consequence of a mix of repressive education and of living in a threatening world. On the contrary, our data showed that RWA could vary, within the same individuals, as a consequence of loss of perceived control due to societal threat (actual and perceived) to safety. In other words, they confirmed Dallago and colleagues' idea that, under specific societal conditions, authoritarianism differences between low and high RWA scorers tend to disappear. Since RWA accounts for relevant proportions of the variance of generalized prejudice (McFarland, 2011), of support of death penalty, of punitive attitudes towards unconventional persons, of approval of the injustice perpetrated by governing authorities, and even of obedience in Milgram-style experiments (Altemeyer, 1981, 1988, 1996), the conception of RWA as a "good for the self" construct (Van Hiel & De Clercq, 2009) sounds rather worrying to us, and makes us even more pessimistic than Fromm was.

As often happens, our studies led us to answer some research questions and raised some other questions. First, we could not quantify the length of the raise in RWA we detected in threatened low RWA scorers. Second, we do not know what would happen to our model when tested in a field research using a measure of actual criminal threat instead of a variable assessing perceived societal threat to safety. In future research these two research questions could be answered using multilevel longitudinal moderated mediation models structured in more than two waves, tested on files aggregated at the block or the neighborhood level.

Moreover, in our two studies we took into account perceived and actual threat stemming from criminality. What would happen if taking into account other forms of threat? In Stenner's (2005) words, threat stemming from criminality should be considered a normative threat, as it menaces the normative order, i.e. to "some system of oneness and sameness that makes 'us' an 'us': some demarcation of people, authorities, institutions, values, and norms that for some folks at some points define who 'we' are, and what 'we' believe in. 'Normative threats' are threats to this oneness and sameness" (p. 17). What would happen if analyzing other kinds of normative threats? Working with an Italian sample, Dallago, Mirisola, and Roccato (2011) recently showed that Openness (which negatively correlates with participants' initial RWA level) does *not* moderate the relation between threat coming from terrorism and RWA, plausibly because RWA is activated as a compensatory mechanism only in the case of threats that are proximal and/or that have been directly experienced, which is not the case of terrorism for a large majority of the Italian population. A development of the present research may focus on other forms of normative and non-normative threat, in order to compare their role in predicting RWA changes.

Finally, among researchers there is no agreement on the "goodness for the self" of RWA: According to Van Hiel and De Clercq (2009) and to Dallago and colleagues (Dallago & Roccato, 2010; Dallago, Mirisola, & Roccato, 2011, 2012) RWA is a psychological variable helping people coping with stress, while according Duriez and colleagues (2012) it is not. As a matter of fact, these researchers' did not assess coping directly: Thus, their conclusions have been just inductive. Future experimental research performed by analyzing simultaneously and explicitly coping strategies used by low and high RWA scorers facing a threat would be interesting.

To conclude, besides stimulating new questions to be addressed in future research, we believe the present study shed light on psychological processes underling RWA changes, leading to a better understanding of this complex construct.

References

Adler, A. (1946). *The practice and theory of individual psychology.* London: Keegan.

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. W. (1991). *Multiple regression: Testing and interpreting interactions*. Thousand Oaks, CA: Sage.

Altemeyer, R. A. (1981). *Right-wing authoritarianism*. Winnipeg, Manitoba: University of Manitoba Press.

Altemeyer, R. A. (1988). *Enemies of freedom: Understanding right-wing authoritarianism*. San Francisco, CA: Jossey-Bass.

Altemeyer, R. A (1996). *The authoritarian specter*. Cambridge, MA: Harvard University Press.

Altemeyer, B., & Hunsberger, B. (1993). Authoritarianism, religious fundamentalism, quest, and prejudice. *International Journal for the Psychology of Religion*, *3*(1), 113-133.

Akrami, N., & Ekehammar, B. (2006). Right-wing authoritarianism and social dominance orientation: Their roots in big-five personality factors and facets. *Journal of Individual Differences*, *27*(3), 117–126.

Asbrock, F., Sibley, C. G:, & Duckitt, J. (2010). Right-wing authoritarianism and social dominance orientation and the dimensions of generalized prejudice: A longitudinal test. *European Journal of Personality*, *24*, 324-340. doi: 10.1002/per.746

Asbrock, F., Christ, O., Duckitt, J., & Sibley, C. G. (2012). Differential effects of intergroup contact for authoritarians and social dominators: A dual process model perspective. *Personality and Social Psychology Bulletin*, 38, 477-490. doi: 10.1177/0146167211429747

Austin, P. C., Escobar, M., & Kopec, J. A. (2000). The use of Tobit model for analyzing measures of health status. *Quality of Life Research*. *9*, 901-910. doi: 10.1023/A:1008938326604

Burger, J. M. (1989). Negative reactions to increases in perceived personal control. *Journal of Personality and Social Psychology*, *56*(2), 246-256.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences*, 3rd ed. Hillsdale, NJ: Erlbaum.

Cohrs, J. C., & Asbrock, F. (2009). Right-wing authoritarianism, social dominance orientation and prejudice against threatening and competitive ethnic groups. *European Journal of Social Psychology*, *39*, 270–289. doi:10.1002/ejsp.545

Cohrs, J. C., & Ibler, S. (2009). Authoritarianism, threat, and prejudice: An analysis of mediation and moderation. *Basic & Applied Social Psychology, 31,* 81-94. doi:10.1080/01973530802659638

Cox, D. R., & Oakes, D. (1984). *Analysis of survival data*. London: Chapman & Hall.

Dallago, F., Cima, R., Roccato, M., Ricolfi, L., & Mirisola, A. (2008). The correlation between right-wing authoritarianism and social dominance orientation: The moderating effects of political and religious identity. *Basic and Applied Social Psychology*, *30*, 362–368. doi: 10.1080/01973530802502333

Dallago, F., & Roccato, M. (2010). Right-wing authoritarianism, big five, and perceived threat to safety. *European Journal of Personality*, *24*, 106-122. doi: 10.1002/per.745

Dallago, F., Mirisola, A., & Roccato, M. (2011). Personalità, minaccia terroristica e autoritarismo di destra [Personality, threat, and right-wing authoritarianism]. *Psicologia sociale*, *6*(1), 103-118.

Dallago, F., Mirisola, A., & Roccato, M. (2012). Predicting right-wing authoritarianism via personality and dangerous world beliefs: Direct, indirect, and interactive effects. *Journal of Social Psychology*, *152*, 112-127. doi: 10.1080/00224545.2011.565384

Dru, V. (2007). Authoritarianism, social dominance orientation and prejudice: Effects of various self-categorization conditions. *Journal of Experimental Social Psychology, 43,* 877-883. doi:10.1016/j.jesp.2006.10.008

Duckitt, J. (2001). A dual-process cognitive-motivational theory of ideology and prejudice. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 33, pp. 41–113). San Diego, CA: Academic Press.

Duckitt, J., & Fisher, K. (2003). The impact of social threat on worldview and ideological attitudes. *Political Psychology, 24*(1), 199–222.

Duckitt, J., & Sibley, C. G. (2009). A dual-process motivational model of ideology, politics, and prejudice. *Psychological Inquiry*, *20*, 98-109. doi: 10.1080/10478400903028540

Duriez, B., Klimstra, T. A., Luyckx, K., Beyers, W., & Soenens, B. (2012). Right-wing authoritarianism: Protective factor against or risk factor for depression? *European Journal of Personality*, *26*, 536-549. doi: 10.1002/per.853

Duriez, B., & Soenens, B. (2006). Personality, identity styles and authoritarianism: An integrative study among late adolescents. *European Journal of Personality, 20,* 397-417. doi: 10.1002/per.589

Ekehammar, B., Akrami, N., Gylje, M., & Zakrisson, I. (2004). What matters most to prejudice: Big five personality, social dominance orientation, or right-wing authoritarianism? *European Journal of Personality, 18*, 463–482. doi: 10.1002/per.526

Feldman, S., & Stenner, K. (1997). Perceived threat and authoritarianism. *Political Psychology, 18*(4), 741–770.

Fromm, E. (1941). *Escape from freedom*. New York, NY: Avon Books.

Giampaglia, G., & Roccato, M. (2002). La scala di autoritarismo di destra di Altemeyer: Un’analisi con il modello di Rasch per la costruzione di una versione italiana [Altemeyer’s right-wing authoritarianism scale: An analysis using the Rasch model for the construction of an Italian version]. *TPM*, *9*(2), 93-111.

Glass, D. C., Singer, J. E., Leonard, H. S., Krantz, D., Cohen, S., & Cummings, H. (1973). Perceived control of aversive stimulation and the reduction of stress responses. *Journal of Personality, 41*, 577-595. doi: 10.1111/j.1467-6494.1973.tb00112.x

Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. Retrieved June 30, 2012 from from Andrew F. Hayes' website: http://www.afhayes.com/public/process2012.pdf

Heaven, P. C. L., & Bucci, S. (2001). Right-wing authoritarianism, social dominance orientation and personality: An analysis using the IPIP measure. *European Journal of Personality, 15*(1), 49–56.

Heaven, P. C. L., Ciarrochi, J., & Leeson, P. (2011). Cognitive ability, right-wing authoritarianism, and social dominance orientation: A five-year longitudinal study amongst adolescents. *Intelligence*, *39*, 15-21. doi:10.1016/j.intell.2010.12.001

Heider, F. (1958). *The psychology of interpersonal relations*. New York, NY: Wiley.

Jackson, J. (2011) Revisiting risk sensitivity in the fear of crime. *Journal of Research in Crime and Delinquency*, *48*, 513-537. doi: 10.1177/0022427810395146

Janoff-Bulman, R. (1989). Assumptive worlds and the stress of traumatic events: Applications of the schema construct. *Social Cognition*, *7*(2), 113-136.

Ji, L.-J., Peng, K., & Nisbett, R. E. (2000). Culture, control, and perception of relationship in the environment. *Journal of Personality and Social Psychology*, *78*, 943-955. doi: 10.1037/0022-3514.78.5.943

Judd, C. M., McClelland, G. H., & Culhane, S. E. (1995). Data analysis: Continuing issues in the everyday analysis of psychological data. *Annual Review of Psychology*, *46*, 433-465. doi: 10.1146/annurev.ps.46.020195.002245

Kay, A., Gaucher, D., Napier, J. L., Callan, M. J., & Laurin, K. (2008). God and the government: Testing a compensatory control mechanism for the support of external systems. *Journal of Personality and Social Psychology*, *95*, 18-35. doi: 10.1037/0022-3514.95.1.18

Kay, A. C., Whitson, J. A., Gaucher, D., & Galinsky, A. D. (2009). Compensatory control: Achieving order through the mind, our institutions, and the heavens. *Current Directions in Psychological Science*, *18*, 264-268. doi: 10.1111/j.1467-8721.2009.01649.x

Kay, A. C., Shepherd, S., Blatz, C. W., Chua, S. N., & Galinsky, A. D. (2011). For god (or) country: The hydraulic relation between government instability and belief in religious sources of control. *Journal of Personality and Social Psychology*, *99*, 725-739. doi: 10.1037/a0021140

Kessler, T. & Cohrs, J. C. (2008). The evolution of authoritarian processes: Fostering cooperation in large-scale groups. *Group Dynamics: Theory, Research, and Practice*, *12*, 73-84. doi: 10.1037/1089-2699.12.1.73

Lau, R. R., & Redlawsk, D. P. (2001). An experimental study of information search, memory, and decision making during a political campaign. In J. H. Kuklinski (Ed)., *Citizens and politics: Perspectives from political psychology* (pp. 136-159). New York, NY: Cambridge University Press.

Lefcourt, H. M. (1973). The function of the illusions of control and freedom. *American Psychologist*, *28*(5), 417-425.

Lippa, R., & Arad. S. (1999). Gender, personality, and prejudice: The display of authoritarianism and social dominance in interviews with college men and women. *Journal of Research in Personality, 33,* 463–493. doi: 10.1006/jrpe.1999.2266

Liu, J. H., Huang, L.-L., & McFedries, C. (2008). Cross-sectional and longitudinal differences in social dominance orientation and right-wing authoritarianism as a function of political power and societal change. *Asian Journal of Psychology*, *11*, 116-126. doi: 10.1111/j.1467-839X.2008.00249.x

Luck, A., Pearson, S., Madden, G:, & Hewett, P. (1999). Effects of video information on precolonscopy anxiety and knowledge: A randomised trial. *The Lancet*, *354*(9195), 2032-2035.

Mavor, K. I., Louis, W. R., & Sibley, C. G. (2010). A bias-corrected exploratory and confirmatory factor analysis of right-wing authoritarianism: Support for a three-factor structure. *Personality and Individual Differences*, 48(1), 28-33.

McBee, M. (2010). Modeling outcomes with floor or ceiling effects: An introduction to the Tobit model. *Gifted Child Quarterly, 54*, 314-320. doi: 10.1177/0016986210379095

McFarland, S. (2011). Authoritarianism, social dominance, and other roots of generalized prejudice. *Political Psychology*, *31*, 453-477. doi: 10.1111/j.1467-9221.2010.00765.x

Miceli, R., Roccato, M., & Rosato, R. (2004). Fear of crime in Italy: Spread and determinants. *Environment and Behavior*, *36*, 776-789. doi: 10.1177/0013916503261931

Mirisola A., Di Stefano, G., Falgares. G. (2007). I processi duali ideologici nel contesto italiano [Ideological dual processes in the Italian context]. In F. Di Maria, G. Di Stefano, & G. Falgares (Eds.), *Psiche e società: La polis siciliana tra conservazione e trasformazione* [Mind and society: The Sicilian polis between conservation and change] (pp. 29-45). Milano: Angeli.

Mirisola, A., Sibley, C. G., Boca, S., & Duckitt, J. (2007). On the ideological consistency between right-wing authoritarianism and social dominance orientation. *Personality and Individual Differences*, *43*, 1851–1862. doi: 10.1016/j.paid.2007.06.006,

Mirisola, A., & Seta, L. (2011). Pequod: Moderated regression package. R package version 0.0-2. Retrieved September 29, 2011 from The comprehensive R archive network Web site: http://CRAN.R-project.org/package=pequod

Mirisola, A., Seta, L., Gentile, M., & La Guardia, D., (2011). DeducerMMR: A deducer plugin for moderated multiple regressions and simple slopes analysis. Retrieved September 29, 2011 from The comprehensive R archive network Web site: http://CRAN.R-project.org/package=DeducerMMR

Morling, B., & Evered, S. (2006). Secondary control reviewed and defined. *Psychological Bulletin*, *132*, 269-296. doi: 10.1037/0033-2909.132.2.269

Perkins, D. D., Meeks, J. W., & Taylor, R. B. (1992). The physical environment of street blocks and resident perceptions of crime and disorder: Implications for theory and measurement. *Journal of Environmental Psychology*, *12*, 21-34. doi: 10.1016/S0272-4944(05)80294-4

Perry, R., Sibley, C. G. (2010). Dangerous and competitive schemas: A new frequency estimation index of the dual process model's social worldviews component. *Personality and Individual Differences 49*, 983–988. doi: 10.1016/j.paid.2010.08.009

Peterson, B. E., & Lane, M. D. (2001). Implications of authoritarianism for young adulthood: Longitudinal analysis of college experiences and future goals. *Personality and Social Psychology Bulletin, 27*, 678–690. doi: 10.1177/0146167201276004

Peterson, B. E., Smirles, K. A., & Wentworth, P. A. (1997). Generativity and authoritarianism implications for personality, political involvement, and parenting. *Journal of Personality and Social Psychology, 72*(5), 1202–1216.

Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Assessing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, *42*(1), 185-227.

Redlawsk, D. P. (2004). What voters do: Information search during election campaigns. *Political Psychology*, *25*(4), 595-610.

Redlawsk, D. P., Civettini, A. J. W., & Emmerson, K. M. (2010). The affective tipping point: Do motivated reasoners ever "get it"?. *Political Psychology*, *31*, 563-593. doi: 10.1111/j.1467-9221.2010.00772.x

Ribisl, K. M., Walton, M. A., Mowbray, C. T., Luke, D. A., Davidson, W. S., II, & Bootsmiller, B. J. (1996). Minimizing participant attrition in panel studies through the use of effective retention and tracking strategies: Review and recommendations. *Evaluation and Program Planning*, *19*, 1-25. doi: 10.1016/0149-7189(95)00037-2

Reich, W. (1933). *Die Massenpsychologie des Faschismus* [Mass psychology of fascism]. Copenhagen: Verlag für Sexualpolitik.

Rickert, E. J. (1998). Authoritarianism and economic threat: Implications for political behavior. *Political Psychology*, *19*(4), 707-720.

Rothbaum, F., Weisz, J. R., & Snyder, S. S. (1982). Changing the world and changing the self: A two-process model of perceived control. *Journal of Personality and Social Psychology*, *42*(1), 5-37.

Rudolph, K. D., Denning, M. D., & Weisz, J. R. (1995). Determinants and consequences of children's coping in the medical setting: Conceptualization, review, and critique. *Psychological Bulletin*, *118*(3), 328-357.

Russo, S., Roccato, M., & Vieno, A. (2011). Predicting perceived risk of crime: A multilevel study. *American Journal of Community Psychology*, *48*, 384-394. doi: 10.1007/s10464-010-9386-x

Sales, S. M., & Friend, K. E. (1973). Success and failure as determinants of level of authoritarianism. *Behavioral Science, 18*, 163-172.

Shepherd, S., Kay, A. C., Landau, M. J., & Keefer, L. A. (2011). Evidence for the specificity of control motivations in worldview defense: Distinguishing compensatory control from uncertainty management and terror management. *Journal of Experimental Social Psychology*, *47*, 949-958. doi: 10.1016/j.jesp.2011.03.026

Sibley, C. G., & Duckitt, J. (2008). Personality and prejudice: A meta-analysis and theoretical review. *Personality and Social Psychology Review 12,* 248-279. doi: 10.1177/1088868308319226

Sibley, C. R., Wilson, M. S., & Duckitt, J. (2007). Effects of dangerous and competitive worldviews on right-wing authoritarianism and social dominance orientation over a five-month period. *Political Psychology*, *28*(3), 357-371.

Stenner, K. (2005). *The authoritarian dynamic*. New York, NY: Cambridge University Press.

Stevens, D., Bishin, B. G., & Barr, R. R. (2006). Authoritarian attitudes, democracy, and policy preferences among Latin American elites. *American Journal of Political Science, 50*, 606-620.

Tourangeau, R., & Ye, C. (2009). The framing of the survey request and panel attrition. *Public Opinion Quarterly*, *73*, 338-348. doi: 10.1093/poq/nfp021

Van Hiel, A., Cornelis, I., & Roets, A. (2007). The intervening role of social worldviews in the relationship between the five-factor model of personality and social attitudes. *European Journal of Personality*, *21*, 131-148. doi: 10.1002/per.618

Van Hiel, A., & De Clercq, B. (2009). Authoritarianism is good for you: Right-wing authoritarianism as a buffering factor for mental distress. *European Journal of Personality, 23*, 33–50. doi: 10.1002/per.702

Van Hiel, A., & Mervielde, I. (2004). Openness to experience and boundaries in the mind: Relationships with cultural and economic conservative beliefs. *Journal of Personality, 72*(4)*,* 659–686.

Whitson, J. A., & Galinsky, A. D. (2008). Lacking control increases illusory pattern perception. *Science*, *322*, 115-117. doi: 10.1126/science.1159845

Williams, R. H., Zimmerman, D. W, Rich, J. M,, & Steed, J. L. (1984a). An empirical study of the relative error magnitude in three measures of change. *The Journal of Experimental Educational*, *53*(1), 55-57.

Williams, R. H., Zimmerman, D. W, Rich, J. M,, & Steed, J. L. (1984b). Empirical estimates of the validity of four measures of change. *Perceptual and Motor Skills*, *58*, 891-896. doi: 10.2466/pms.1984.58.3.891

Appendix A

It is 2020 and after some years living abroad you come back to Italy. You fulfilled your life plans, especially as concerns family, job, career and friends. When you come back you find out that Italy has changed a lot. Politically speaking, the same old parties you used to know still exist, even though their leaders changed. In the meantime, many new parties appeared on the political arena. The general election is oncoming and you'll have to cast a vote: The electoral campaign is about to begin. Your task is to get a sense of what your country looks like in 2020 and of the candidates running for the election. Once the campaign is over, you will have the chance to cast a vote. During an electoral campaign, people get their news from different sources (newspapers, television, internet, friends and relatives, associations, the candidate themselves, and so on). There is much more available than anyone can possibly pay attention to and this will be true in our campaign as well. You will have to choose the information you would like to read. As in the practice session, information about each candidate will appear in a box that scrolls down the screen. If you wish to view a piece of information, click on the box and you will be able to read the contents inside. If you are not interested in some piece of information, you can simply let it scroll down. The electoral campaign will last about 10 minutes.

Appendix B

Secure scenario

Breaking news: latest Istat[5] research results

A recent Istat research showed that Italy deeply changed in the last ten years. Crime and delinquency are still present, but decreased so much that every year Italy is becoming more secure than ever. The immigration tension that used to be high at the beginning of the III millennium is over, thanks to some legislative changes approved by a large majority. Today Italy is looked at as an example of harmony and racial integration: Italians and immigrants live and work together contributing to increase social wellbeing. In the world, these are peaceful and flourishing times. For the most part, polls show that Italians feel to live in one of the best periods of the human history, with security, progress, and success spread all over. Tourists are impressed by Italian friendliness, worthiness, integrity, and kindness and by the nice, clean and neat country.

Insecure scenario

Breaking news: latest Istat research results

A recent Istat research showed that Italy deeply changed in the last ten years. Crime and delinquency are all over and violent assaults take place everywhere. Whenever they can, people avoid walking alone at night because armed squads control many cities districts and go around assaulting and robbing. The huge number of immigrants arrived in Italy in the last years made the situation worse by increasing the crime rates. Home burglaries, especially at night, are today a common experience and are more violent than ever. The police is unable to handle the situation and it seems they are not implementing strategies to fight crime anymore. From the beginning of the III

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[5] Istat is the Italian National Institute of Statistics, the main Italian producer of official statistics in the service of citizens and policy-makers.

millennium, different governments succeeded, but none of them was able to manage these serious problems.

Table I.

Study 1. Descriptive Statistics for Our Variables and Correlations among Them

	M	*SD*	1	2	3	4	5	6
1. Woman	42.08	.49	1.00	-.11***	-.04	-.04	.01	.08*
2. Age	52.38	15.68		1.00	-.19***	.18***	.17**	.08**
3. Years of education	10.89	3.81			1.00	-.15***	-.17***	-.10***
4. RWA T_1 (January 2003)	3.35	.86				1.00	.58***	.23***
5. RWA T_2 (January 2005)	3.02	.82					1.00	.29***
6. Perceived societal threat to safety (September 2004)	3.34	.59						1.00

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

Table II.

Study 1. Predictors of RWA at T_2

	Model 1			Model 2		
	B	*S.E.*	Beta	*B*	*S.E.*	Beta
Intercept	3.00***	.02		3.01***	.03	
Woman	.04	.04	.02	.04	.04	.03
Age	.00*	.00	.05	.00*	.00	.06
Education	-.01**	.01	-.06	-.01*	.00	-.06
RWA at T_1 (January 2003)	.51***	.02	.53	.50***	.02	.52
Perceived societal threat to safety (September 2004)	.21***	.03	.15	.20***	.03	.15
RWA at T_1 * Perceived societal threat to safety				-.09**	.03	-.07

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

Table III.

Study 2. Descriptive Statistics for Our Variables and Correlations among Them

	M	*SD*	1	2	3	4
1.Scenario			1	.03	.08	-.20*
2. RWA at T_1	1.79	.38		1	.80**	-.07
3. RWA at T_2	1.72	.40			1	-.09
4. Control change	.00	.49				1

Table IV.

Study 2. Regression Results for Conditional Indirect Effect

	B	*SE*	Beta
Control perception change			
Constant		.04	.00
Secure vs. insecure scenario	-.20*	.04	- .10
RWA at T_2			
Constant		.02	-.01
Secure vs. insecure scenario	.04	.02	.02
Control perception change	-.07	.05	-.06
RWA at T_1	.77***	.06	.81
RWA at T_1 * Control perception change	.13*	.14	.33

Note. *** $p < .001$. * $p < .05$.

Figure captions

Figure 1. Study 1: Moderating Effect of RWA at T_1 on the Relation between Perceived Threat to Safety and RWA at T_2.

Figure 2. Study 2: Moderated Mediation Model Predicting RWA at T_2 as a Function of Manipulated Threat, Control Perception Change, and RWA at T_1 (Standardized Betas are Displayed).

Figure 3. Study 2: Moderating Effect of RWA at T_1 on the Relation between Control Perception Change and RWA at T_2.

Figure 4. Study 2, Supplementary Analyses: Moderated Mediation Model Predicting RWA at T_2 as a Function of Manipulated Threat, Dangerous Word Beliefs Change, Control Perception Change, and RWA at T_1 (Standardized Betas are Displayed).

Figure 1.

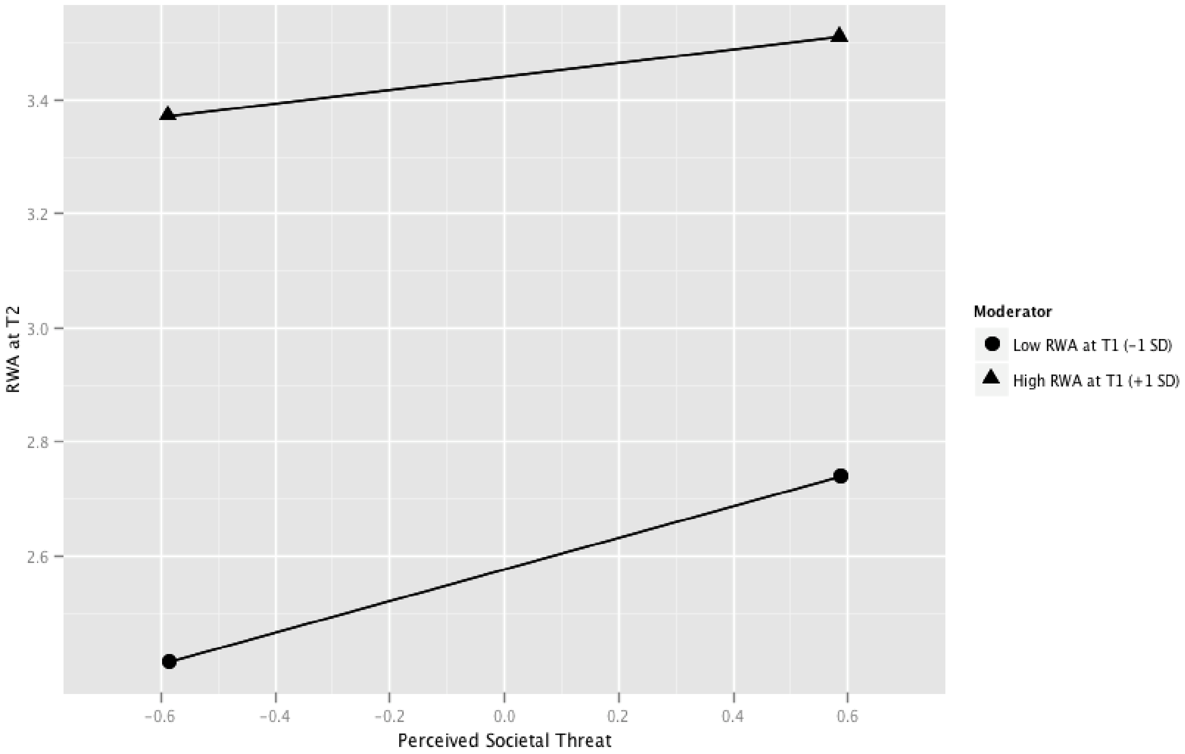

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Figure 2.

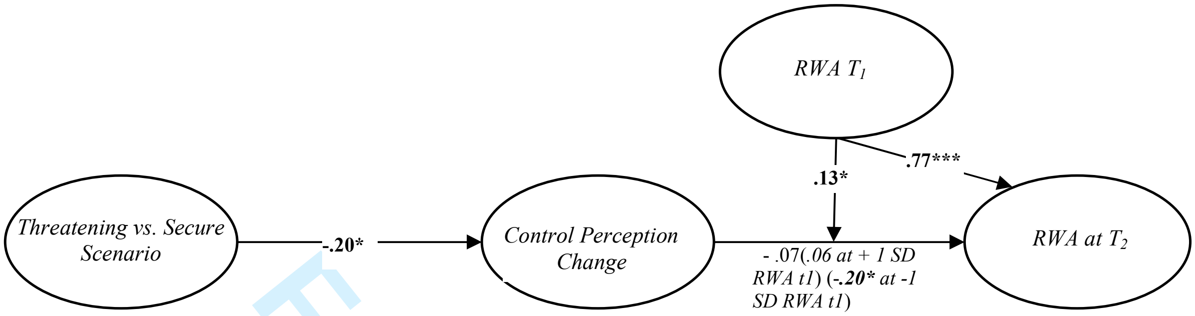
RWA T_1
.13*
.77***
Threatening vs. Secure Scenario
-.20*
Control Perception Change
RWA at T_2
- .07(*.06 at + 1 SD RWA t1*) (***-.20**** *at -1 SD RWA t1*)

Figure 3.

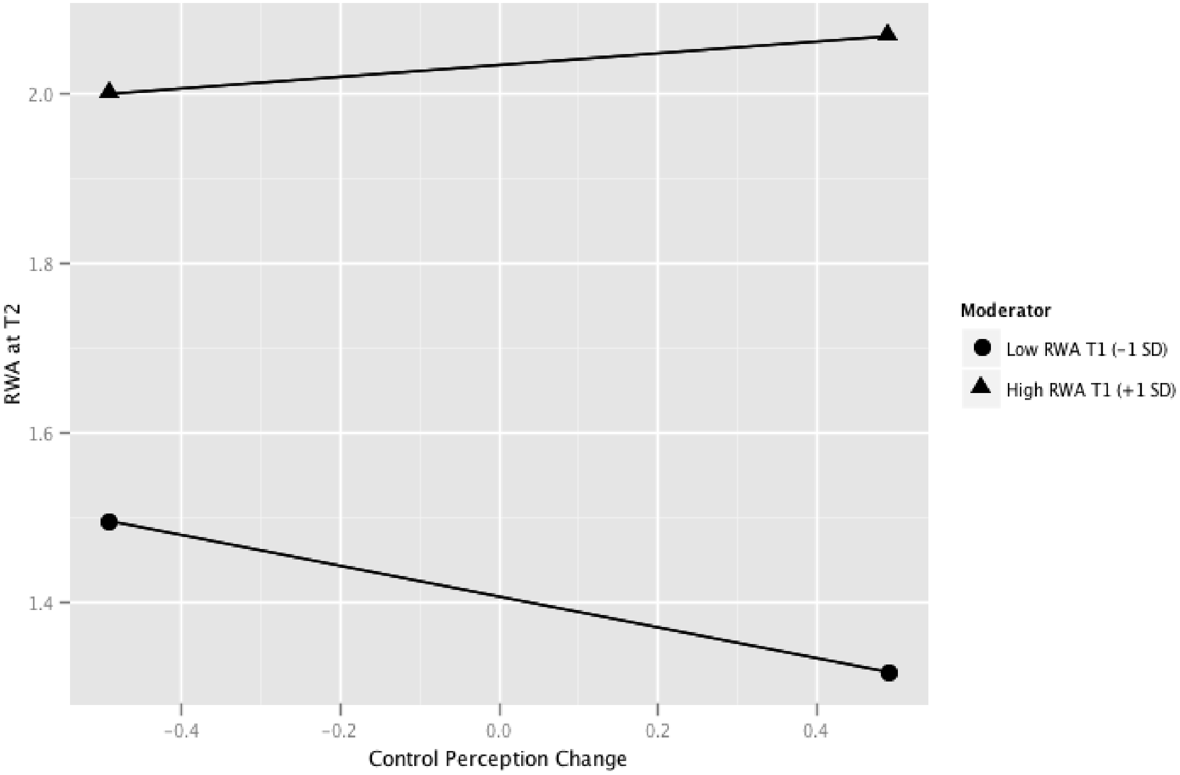

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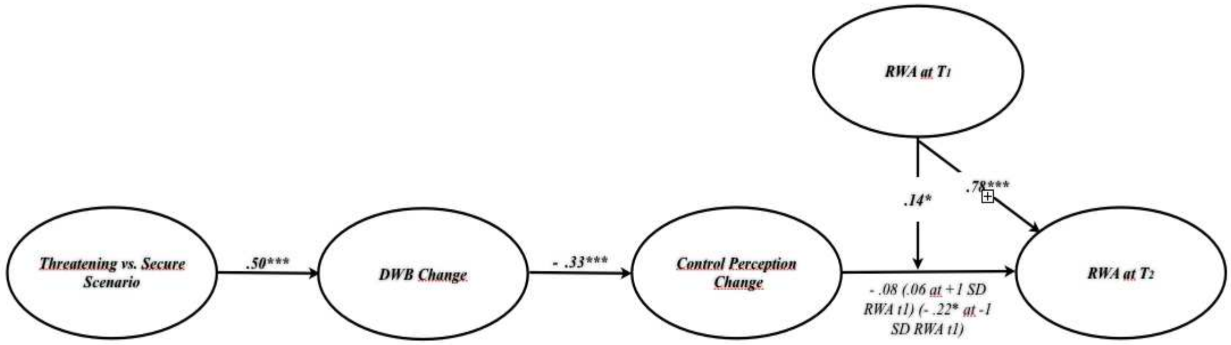
Figure 4.


RWA at T1
Threatening vs. Secure Scenario
*.50****
DWB Change
*- .33****
Control Perception Change
*.14**
*.78****
- .08 (.06 at +1 SD RWA t1) (- .22 at -1 SD RWA t1)*
RWA at T2