ORIGINAL ARTICLE

The Buffering Effects of Right-Wing Authoritarianism on Future Anxiety: the Mediating Role of COVID-19-Related Demoralization and Perceived Risk

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Abstract
In the last decade, our knowledge of authoritarianism has completely shifted from that of a personality dimension to that of a multidimensional attitudinal structure. Current theories stipulate that individuals are motivated to maintain a sense of collective security within their social group. When a group is confronted with societal threats, such as COVID-19, individuals respond by increasing their exhibition of authoritarian practices to maintain collective security. Where a sense of control cannot be maintained, it can contribute to poor psychological outcomes such as negative future outlooks. In the present study, we collected a community sample of 948 individuals to test how authoritarianism may alleviate feelings of future anxiety. We hypothesized that perceived risk and demoralization would mediate the effects of authoritarianism on future anxiety. Our results supported that demoralization is a significant mediator, in that higher authoritarianism is associated with lower levels of demoralization that in turn is associated with lower levels of future anxiety. However, we did not support a mediating role in the perceived risk of COVID-19. Our results illuminate a potential pathway between authoritarianism and the mitigation of maladaptive psychological outcomes in the face of societal threats. Perhaps encouragingly, authoritarianism was associated with morale but did not diminish the seriousness of the perceived threat of COVID-19. We suggest that morale be a point of future investigation when aiming to understand the effects of authoritarianism on maintaining groups' collective security.

Keywords Authoritarianism · Perceived threat · Anxiety · Demoralization · COVID-19

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Governments around the world have played critical roles in mitigating the death toll of the COVID-19 pandemic. With the absence of vaccines or effective treatments early in the pandemic, the only means to limit the spread of the virus was to impose restrictions on social movement. Indeed, in line with the World Health Organization (WHO) pandemic declaration in March 2020, most governments took action to slow down the dissemination of the virus by implementing policies to severely restricted work, travel, and commercial activities (e.g., Bochicchio et al., 2021). Although restrictive government policies such as these would be seen as unacceptable in normal times, at the beginning of 2020 citizens not only tolerated government action but often demanded it (Winter et al., 2022a, b).

Our study took place between October and November 2020, which corresponded to the beginning of the second wave of the COVID-19 pandemic in Italy (National Institute of Statistics, 2021). The second wave lasted from October 2020 to January 2021 (the first wave had taken place in Italy in February–March 2020 and had been followed by a period of transition and apparent latency of the pandemic until the end of September 2020). Similarly, to the first pandemic wave, the second wave witnessed a rapid increase at an exponential rate in COVID-19 cases. In Italy, legislative measures were further taken at the beginning of November 2020 to contain the renewed spread of the virus, subdividing the Italian territory in red, orange, and yellow areas, respectively, based on the risk-related scenarios present in the various regions. The COVID-19 pandemic generated great stress in the population not only due to the imposed restrictions but also because of the stressful symptoms that the disease involved in the affected individuals, who witnessed a deterioration in their quality of life also due to the sensory impairment caused by the virus (Raffagnato et al., 2021; Bochicchio et al., 2023).

This increase in individual and group support for social restrictions has been understood as correlated with an increase in right-wing authoritarianism (RWA) (Blanchet & Landry, 2021; Winter et al., 2022a, b). RWA has been conceptualized in different ways, for instance, as a set of responses intended to reduce anxiety and perceived threat (Feldman & Stenner, 1997), as a latent disposition that can be activated or muted depending on the vagaries of the context (Feldman, 2003), as a general disposition involving a mixture of dogmatism, conformist behaviors, punitiveness towards real or perceived adversaries and a strong desire for social hierarchy (Manson, 2020), and as a group phenomenon that tends to be associated with negative opinions toward groups that are marginalized (Stellmacher & Petzel, 2005).

RWA is negatively correlated with relevant deservingness heuristics (Jensen & Petersen, 2017), which influence people's opinions about the policies that should be aimed at helping vulnerable groups. In regard to the willingness to personally and socially help those in need, for instance, a relationship has been found to exist between RWA and responsibility judgments (Halkjelsvik & Rise, 2014). Feldman (2003) conceptualized RWA by considering people's orientations toward society and, more specifically, the ongoing conflicts between individual rights and the well-being of society as a whole. Accordingly, people who value autonomy over conformity tend to have a less negative attitude toward groups that do not completely conform to social conventions. In this view, individuals high in RWA typically tend to hold prejudice toward those who are not seen to follow established norms, such as

sexual, religious, or ethnic minority groups (Blanchet & Landry, 2021; Pacilli et al., 2022; Stones, 2006).

Adorno et al.'s (1950) classic theory of the authoritarian personality posited that general prejudiced attitudes, ethnocentric dispositions, political conservatism, and profascist attitudes derive from individual attributes such as personality factors. This original "unidimensional approach" regarded socio-political or ideological attitudes and beliefs as structured along a single left (liberal) to right (conservative) dimension, and as being causally rooted in a common set of socio-psychological determinants.

Altemeyer (1998) conceived of RWA as a fixed personality construct composed of three general characteristics, namely, authoritarian submission, conventionalism, and authoritarian aggression. More recently, Duckitt (2001, 2022) argued that RWA is a multidimensional attitude-based construct that is influenced by the environment rather than a fixed feature of an individual's personality. Jugert and Duckitt (2009) viewed the three RWA dimensions proposed by Altemeyer (1998) (i.e., authoritarian submission, conventionalism, and authoritarian aggression) as expressing specific motivational goals or values. A "two-dimensional approach" has thus been proposed, which regards ideological attitudes as organized along two relatively independent, albeit often related, social attitudinal dimensions, with quite different social and motivational bases (Duckitt & Sibley, 2009). More specifically, in Duckitt's (2001) "dual process motivational (DPM) model," individuals' prejudiced intergroup attitudes stem from two motivational goals, namely a competitively driven dominance-power-superiority motivation and a threat-driven social control and ingroup defense motivation. These two motivational orientations generate both specific and generalized prejudice, which are thought of as deriving from both individual and social intergroup factors (Duckitt & Sibley, 2017). In the present work, we endorse Duckitt et al.'s (2002) view of RWA as a set of ideological attitudes deriving from both individual and social factors rather than as a mere personality dimension.

Analyzing people's accounts of RWA, Gray and Durrheim (2013) also showed that its construction is associated with the mobilization of two ideological arguments, namely, the relationship between individual and society, and the idea of social and personal threat. The so-called Dark Tetrad of personality is associated with hostility and avoidance of others and has been understood as comprised of the personality dimensions of narcissism, psychopathy, Machiavellianism, and sadism (Buckels et al., 2013). Southard et al. (2015) added right-wing authoritarianism, among other factors, to this conceptualization, concluding that "the interpersonal styles associated with most dark personality features are riddled with hostility toward others or avoiding others" (p. 582).

According to Duckitt and Sibley (2017), both specific and generalized prejudices are shaped by both individual and social influences. In this framework, "RWA is defined as a threat-driven attitudinal expression of the values or motivational goals of collective security, control, stability, and order" (p. 190). Accordingly, RWA-related values are formed on the basis of both the individual's personality and socially informed worldview beliefs. Therefore, "high RWA, which expresses the value or motivational goal of establishing and maintaining collective or societal security, order, stability, and cohesion (as opposed to individual freedom, autonomy,

and self-expression) is made chronically salient for individuals by their socialized belief that the world they live in is dangerous, threatening, and unpredictable (as opposed to safe, secure, stable, and predictable)" (*ibid.*). Indeed, research has shown that individuals high in RWA beliefs tend to react more strongly to social threats and be more prone to feeling the desire of controlling them (Lavine et al., 2002). More specifically, RWA behaviors tend to increase along with societal threats (Duckitt, 2001). One source of societal threat can occur through times of crisis or rapid social changes, leading to an internalization of RWA attitudes (Oesterreich, 2005). As threat hinders perceived control of events, RWA seems to increase with lower perceived control of events, RWA seems to increase with lower perceived control, leading individuals to support social ingroups (Fritsche et al., 2011). The relationship between perceived threat and RWA seems to be influenced more by external than internal types of threat (Onraet et al., 2013). The means by which RWA may be offering protection against a societal threat is by increasing the collective security of the in-group (Jugert & Duckitt, 2009). Ultimately, however, the relationship between threat and RWA is complex and appears as bidirectional (Choma & Hodson, 2017).

On this basis, the premise of the present investigation was to determine whether, in the context of the COVID-19 pandemic, RWA beliefs ameliorate negative expectations about the future. We obtained self-report data from approximately one thousand Italian community adults about their endorsement of RWA beliefs, demoralization (lack of hope), perceived risk of COVID-19, and negative views of the future. Our hypothesis was intended to determine whether individuals who reported higher RWA beliefs would also report lower levels of negative expectations for the future. Further, we investigated whether demoralization and perceived COVID-19 risk mediated this effect.

Associations of RWA with Related Variables

Future Anxiety Future anxiety refers to "attitudes toward the future in which negative cognitive and emotional processes outweigh positive ones and in which fear is stronger than hope" (Zaleski, 1996, p. 108). Interest in future anxiety was building prior to the COVID-19 pandemic, with issues such as terrorism and global warming, to name just two, contributing to negative feelings about the future (Zaleski et al., 2019). It would stand to reason that COVID-19 would contribute to future anxiety, given the uncertainty associated with the pandemic. In relation to RWA, there is a long history of associations between authoritarianism and anxiety (Singer & Feshbach, 1959). Controversially there have been similarly early studies that contradicted such associations (Sinha & Sinha, 1976). These early studies lack the context we discussed previously on RWA effectively being an attitude-based coping mechanism (Shaffer & Duckitt, 2013). The temporal significance of threat and its amelioration is this a complexity in the research that must be confronted. In the present study, we would postulate that heightened levels of RWA would reduce the anticipation of anxiety in the future, given an individual's authoritarian beliefs and behaviors would be seen to stabilize the uncertain security of the ingroup.

Demoralization Demoralization (i.e., one of the proposed mediators) refers to a mental state of a person who feels deprived of courage and is disheartened, bewildered, and confused (de Figueiredo, 2015). Even though it is arguably one of the main reasons that push people to seek psychological help, the concept has been historically quite ignored in psychiatry (Clarke & Kissane, 2002). The psychological hallmark of demoralization seems to be "subjective incompetence"—which is the opposite of individual resilience—and is associated with depression, anxiety, and/or anger, along with despair, hopelessness, and helplessness (Clarke & Kissane, 2002). As a sense of disempowerment and futility, demoralization is present in various clinical contexts as well as in the general population. It is associated with stressful circumstances and potentially increases the vulnerability to illness as it is related to a perceived inability to cope (Tecuta et al., 2015). As the pandemic unfolded through the collection period for the present study, naturally stress and perceived helplessness could flourish through prolonged isolation (Tang et al., 2021).

RWA is the manifestation of a set of attitudes which can be utilized by individuals to address a negative outcome through enhanced collective security of a group. It therefore seems plausible that higher levels of RWA would embolden individuals with a sense of resilience (i.e., lower levels of demoralization), which in turn would decrease their future anxiety. That is, demoralization mediates a relationship between RWA and future anxiety.

Perceived Risk of COVID-19 The COVID-19 pandemic inevitably compelled individuals to face the fear of contracting the disease. Kim et al. (2022) showed that a higher perceived risk of COVID-19 infection predicts greater depressive symptoms, in particular for adults that went through childhood trauma. The perceived risk of contracting COVID-19 appears to be stronger in females than in males (Sinha & Sinha, 1976; Yıldırım et al., 2022), who tend to express less concern about the possible consequences of the disease. Also, fear and perceived risk of COVID-19 seem positively associated with anxiety, stress, and depression, which are reduced in the presence of resilience (Yıldırım et al., 2022). Finally, a higher perceived risk of COVID-19 is significantly associated with lower positivity and happiness but higher levels of death distress (Yıldırım & Güler, 2021).

The perceived risk of contracting the virus can be regarded as an affective, emotional response to threat, which is directly associated with protective behaviors that are endorsed in the attempt to face the perceived danger (Khosravi, 2020). Several factors contribute to the higher perceived risk of the pandemic and subsequent protective types of behavior, such as being older, female, more educated, and non-white (Bish & Michie, 2010). Other factors that determine the level of perceived risk include the social context, trust, and conservative values such as conformity and traditional norms (Khosravi, 2020). In turn, different kinds of conservatism (e.g., social, economic) have been shown to be associated with RWA (Harnish et al., 2018). Namely, we would hypothesize that those higher in RWA would experience a reduced perception on the risk of COVID-19

and, in turn, have lower levels of future anxiety. The theory we introduce from the literature would explain this mediation as RWA form protection to reduce risk (or perception thereof) of COVID-19 and without any perception of risk, the future is more certain and safer with an enhanced level of collective security over the individuals group.

The Present Study

The current study is aimed at examining whether RWA beliefs may act as a coping strategy, reducing anxiety about the future (hypothesis 1). We also considered whether a third variable could help explain the relationship between RWA and future anxiety. The first variable we considered was demoralization, which we expected to decrease as RWA increased, given that RWA is considered as a means of addressing the loss of control that drives negative psychological outcomes (Mirisola et al., 2014). The second candidate variable we considered was the perceived risk of COVID-19, which we expected to decrease as RWA increased based on those with higher levels of RWA considering their authoritarian tendencies to provide collective security overcoming the fallout from COVID-19 (Winter et al., 2022a, b). The logic for picking these two constructs specifically, is due to the theoretical implication of RWA fostering empowerment and resilience and demoralization is conceptually the opposite of this (Jugert & Duckitt, 2009). In the case of COVID-19 risk, our logic is borne out of both theoretical implications of threats to collective security, and also a demonstrated association between COVID-19 and RWA specifically in recent literature (Jugert & Duckitt, 2009; Winter et al., 2022a, b).

In sum, the ACT model of authoritarianism outlined by Duckitt across his papers suggests that people are fearful of existential threats and that by adapting their level of expression of authoritarian attitudes, it can promote social cohesion which protects against that threat (Jugert & Duckitt, 2009). Thus, in the absence of authoritarian attitudes, people will anticipate decline in societal functioning and anticipate feelings of anxiety about the future. We believe that this will operate through demoralization and perceived threat because in the former, those high in authoritarianism will feel the threat is being appropriately addressed through social cohesion, contributing to higher morale and less severe perceptions of COVID-19's severity.

Thus, we hypothesized that demoralization and perceived risk would decrease as RWA increased, also being associated with a decrease in future anxiety. In other words, demoralization would mediate an effect between RWA and future anxiety (hypothesis 2). Perceived risk of COVID-19 would similarly mediate an effect between RWA and future anxiety (hypothesis 3). The model is depicted in Fig. 1. Mediating relationship allowed us to determine how much variance being explained by our explanatory variable, RWA. In contrast, a moderating relationship would capture a multiplicative association between RWA and our hypothesized mediators.
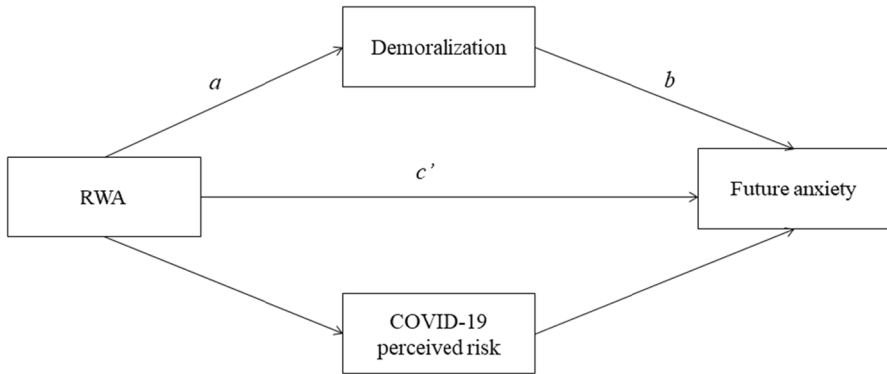
Fig. 1 Multiple mediations for future anxiety. The letters "a" and "b" denote the two paths consisting of each mediation effect. The "c'" denotes the direct effect of RWA on the outcome after controlling for mediating effects. Covariates of age and gender are included for each mediator and outcome but not pictured to refrain from crowding the figure

Method

Participants and Procedures

A cross-sectional survey was administered to a community sample who were recruited via the Qualtrics survey software between October and November 2020. To participate in the current study, participants had to be at least 18 years old (the Italian age of consent) and live in Italy. Participants were recruited on the main social networks (e.g., Facebook) and those interested were asked to spread the survey to their personal contacts, activating a snowball sampling recruitment procedure. Participants were informed about the objectives of the study, benefits, risks, researchers' information, and anonymity of the survey. All questions had to be completed to avoid missing data. However, participants were also informed about their right to withdraw from the survey at any point they needed.

A total of 1001 people participated in the survey. However, 33 participants were excluded because they did not meet at least one of the inclusion criteria, 10 were outliers on at least one measure because they had standardized scores greater than 3.29 or lower than -3.29, and 10 were excluded because they reported being transgender or nonbinary. Regarding the last item, we decided to remove transgender and nonbinary individuals because their rates were too low to make any possible gender-based differences. Thus, the total sample of the current study consisted of 948 cisgender participants.

Participants ranged in age from 18 to 80 years old, with a mean age of 27 years ($SD = 11$). Overall, 31.9% ($n = 302$) of participants were male and 33.2% ($n = 315$) were highly educated ($\geq$ college).

Ethical approval was granted by the departmental ethics committee within the University of Calabira (protocol number: 8104/2020). The study was designed

in accordance with the Declaration of Helsinki and in respect of the EU General Data Protection Regulation.

Power Analysis

A previous study by Bochicchio et al. (2021) generated an Italian sample to investigate the effects between RWA and maladaptive COVID-19 behaviors. In this study, we relied on the correlation between RWA and COVID-19 anxiety ($r=0.1$) as an approximation of the effect we would have expected between RWA and anxiety in the sample. Thus, we conducted a power analysis using the *pwr* package in R with desired power of 80%, $r=0.1$, and $\alpha=0.05$, resulting in a suggested sample size of 781 people. It was concluded that the sample subsequently collected of 948 participants would be sufficient to identify a similar relationship when using regression modeling.

Measures

Socio-demographic Information We collected information on sex assigned at birth (male, female, or other), actual gender identity (man, woman, or other with specification), age, and education level ($\leq$ high school or $\geq$ college).

Right-Wing Authoritarianism (RWA) RWA was assessed through the 10-item version of the *Right-Wing Authoritarianism Scale* (Altemeyer, 1998; Giampaglia & Roccato, 2002). An example item is "The only way our country can get through the crisis ahead is to get back to our traditional values, put some tough leaders in power, and silence the troublemakers spreading bad ideas." Response options ranged from 1 (strongly disagree) to 4 (strongly agree), with higher scores indicating greater RWA. Thus, the score could range from 10 to 40. The Cronbach α for the current sample was 0.70.

Demoralization Demoralization was assessed using the *Demoralization Scale-II* (DS-II) (Robinson et al., 2016), a 16-item scale evaluating demoralization on two dimensions, meaning and purpose, and distress and coping ability. An example item is "My life seems to be pointless." Response options ranged from 0 (never) to 2 (often), with higher scores indicating greater demoralization. Therefore, the score could range from 0 or 32. The Cronbach α for the current sample was 0.93.

Future Anxiety The tendency to think about the future with uncertainty and anxiety was assessed through the 5-item *Dark Future Scale* (DFS; Zaleski et al., 2019). An example item is "I am disturbed by the thought that in the future I won't be able to realize my goals." Response options ranged from 0 (decidedly false) to 6 (decidedly true), with higher scores indicating higher anxiety about the future. Therefore, the score could range from 0 or 30. The Cronbach α for the current sample was 0.88.

Perceived Risk of COVID-19 The perceived risk of COVID-19 was assessed through the *COVID-19 Perceived Risk Scale* (CPRS; Yıldırım & Güler, 2022). The CPRS is an 8-item scale measuring both the cognitive and emotional aspects of risk related to COVID-19. Response options ranged from 1 (negligible) to 5 (very high), with higher scores indicating greater perceived risk of COVID-19. An example item is "How worried are you about contracting COVID-19?" Therefore, the score could range from 8 or 40. The Cronbach α for the current sample was 0.71.

Analytical Plan

First, descriptive statistics (means and standard deviations) and bivariate correlations between the main variables of the study (RWA, demoralization, future anxiety, and perceived risk of COVID-19) were calculated.

Second, we tested whether RWA is a negative predictor of future anxiety while controlling for age and gender. We then added the mediators, demoralization and perceived risk of COVID-19, to form two multiple mediation models. The mediations allowed us to test whether the relationship between RWA and future anxiety can at least be partially explained by the mediators.

A significant mediating effect was determined using the product of coefficients using bootstrapping. That is, we multiplied the coefficient of each a-path (from RWA to its mediator) by each respective b-path (mediator to outcome) to determine a mediating (indirect) effect (a*b; MacKinnon et al., 2002). The standard error was calculated using bootstrapping which overcomes slight deviation from normality often observed in mediation analysis (Preacher & Hayes, 2004). Significance was determined based on the relationship between the bootstrapped standard errors and indirect effect. The models were implemented using the *lavaan* package (version 0.6.8) in R (version 4.0.3).

To assess the magnitude of the correlation and regression coefficients, we referred to the works of Hemphill (2003) and Keith (2014), according to whom 0.02, 0.15, and 0.35 represent a small, medium, and large effect, respectively.

Of note, the present study is cross-sectional and observational which prohibits our ability to determine a direction of effect between variables. In the present context, mediation indicates the variance between the explanatory and outcome variables that can otherwise be explained indirectly by the mediator, i.e., the extent to which the mediator is associated, but not causally connected to the explanatory-to-outcome association. This analysis will not establish the direction of the effect and instead rely on theory presented herein to postulate on direction of effect.

Results

Descriptive Statistics and Bivariate Correlations

Means, standard deviations, and bivariate correlations between the variables of the study are shown in Table 1. RWA was negatively correlated with demoralization

Table 1 Descriptive statistics and correlations between RWA, demoralization, future anxiety, and COVID-19 perceived risk

Scales	1	2	3	4	*M*	*SD*
1. RWA	–				19.33	4.24
2. Demoralization	− .12***	–			12.20	8.31
3. Future anxiety	− .16***	.55***	–		17.17	7.38
4. COVID-19 perceived risk	.03	.23***	.25***	–	25.17	4.55

RWA right-wing authoritarianism

*** $p < .001$

and future anxiety, but not with perceived risk of COVID-19. These correlations tended to be quite weak with *r*'s of around 0.2. Demoralization and perceived risk of COVID-19 correlated positively and quite strongly with each other.

Direct Effects of RWA on Future Anxiety

Results of the direct effects of RWA on future anxiety are reported in Table 2. In support of the hypothesis 1, future anxiety as an outcome had a significant and reasonably large negative association with RWA ($\beta = 0.49$, $p < 0.001$).

Among the control variables, levels of anxiety towards the future did not vary across age. Instead, only gender was associated with future anxiety, indicating that male participants were less likely than female participants to be anxious towards the future. Note that the effect of Gender was around the same effect size as RWA and in subsequent analyses becomes relatively larger than the effects of interest. This is consistent across the literature so we did not have reason to believe this was an anomaly within our sample but quite standard (Sinha & Sinha, 1976; Yıldırım et al., 2022).

Mediating Roles of Demoralization and Perceived Risk of COVID-19

Results from multiple mediation predicting future anxiety are reported in Table 3.

RWA yielded a significant direct effect (c`-path) on the outcome of future anxiety after accounting for our mediators ($p < 0.001$), further supporting hypothesis 1 that RWA beliefs may act as a coping strategy, reducing anxiety about the future. Along

Table 2 Regression analysis for direct effect of RWA on future anxiety

Outcome	Effect	β	*SE*	*t*	*p*
Future anxiety	Intercept	4.72	.24	19.38	< .001
	RWA	− .49	.11	− 4.44	< .001
	Age	− .01	.00	− 1.35	.177
	Gender (male)	− .56	.10	− 5.50	< .001

RWA right-wing authoritarianism

Table 3 Results from multiple mediation model predicting future anxiety

Outcome	Predictor	β	SE	z	p
Future anxiety	RWA (c`-path)	−.35	.09	−3.70	<.001
	Demoralization (b1-path)	.09	.01	18.44	<.001
	COVID-19 perceived risk (b2-path)	.04	.01	4.75	<.001
	Age	.00	.00	.79	.429
	Gender (male)	−.19	.09	−2.21	.027
Demoralization	RWA (a1-path)	−1.88	.62	−3.03	.002
	Gender (male)	−3.27	.57	−5.79	<.001
	Age	−.10	.02	−4.09	<.001
COVID-19 perceived risk	RWA (a2-path)	.52	.35	1.50	.133
	Gender (male)	−1.68	.32	−5.32	<.001
	Age	.00	.01	.23	.821
Mediation effects	Demoralization (a1*b1)	−.17	.06	−2.99	.003
	COVID-19 perceived risk (a2*b2)	.02	.02	1.43	.152

RWA right-wing authoritarianism

with a direct effect, both demoralization and perceived risk of COVID-19 demonstrated a significant association with future anxiety (*ps* < 0.001). RWA also demonstrated an association with demoralization (*p* = 0.002) but was not significantly associated with perceived risk (*p* = 0.133). Therefore, demoralization significantly mediated the effect between RWA and future anxiety (a*b, *p* = 0.003), supporting hypothesis 2. However, perceived risk did not mediate an effect (a*b, *p* = 0.152) due to the nonsignificant a-path (RWA did not predict perceived risk), thus failing to support hypothesis 3. If we consider the proportion of the total effect mediated by both effects (mediator/total effect or a*b/c), then we could suggest that demoralization explained about 34% of the effect between RWA and future anxiety. The perceived risk of COVID-19 suppressed the effect by 4%, but this was not statistically significant. Referring back to the correlation matrix, we saw a similar pattern with a moderate correlation between demoralization and future anxiety, but only a small correlation between perceived risk and future anxiety (Table 1). In short, RWA had a much larger coefficient predicting demoralization than perceived risk, but also maintained a strong direct effect on future anxiety (Table 3). It should be noted that the coefficient for demoralization predicting future anxiety was quite small, indicating that although there was a significant mediation, the direct effect of RWA on future anxiety is much stronger than the effect of RWA via an association with demoralization.

Discussion

The present study highlights complex relationships between RWA and anxiety about the future in the face of threats such as COVID-19. Specifically, we predicted that higher levels of RWA would be associated with lower levels of future anxiety. We

also predicted and successfully supported that higher levels of RWA were associated with lower levels of demoralization, and that lower levels of demoralization were associated with lower levels of future anxiety. We therefore concluded that demoralization is a potential mediator of an effect between RWA and future anxiety. As opposed to demoralization, COVID-19-related perceived risk was also associated with lower levels future anxiety, but since there was no significant relationship between RWA and perceived risk, there was no indirect effect and we therefore failed to support our prediction of a mediating effect between these variables.

These findings suggest that high levels of RWA might mitigate future anxiety by maintaining higher morale (i.e., decreasing demoralization). This interpretation has strong support and is deeply rooted within the ACT (i.e., authoritarianism-conservatism-traditionalism) model put forward by Duckitt et al. (2010). In the ACT model, RWA can be thought of as a multidimensional construct of three attitudes that fluctuate in response to threat. It is our interpretation that individuals are motivated to maintain and enhance their authoritarian beliefs in response to COVID-19 uncertainty. These authoritarian tendencies are seen to enhance the security within a group and reduce uncertainty over the future.

The RWA construct seems to function as a protective mechanism against feelings of insecurity about the future, which are avoided by abiding by strict and well-established rules and norms. The function of RWA appears then to consist of taking shelter in the security provided by institutional regulations, thus mustering the power to escape from critical situations such as that represented by the COVID-19 pandemic. Certainly, such a response is not unprecedented internationally in the context of COVID-19, nor are higher levels of authoritarianism limited to those who are politically right-wing (Schnelle et al., 2021; Winter et al., 2022a, b). There is also some international support that levels of authoritarianism will decrease once the threat abates (Pazhoohi & Kingstone, 2021; Winter et al., 2022b), but this could not be tested under the current cross-sectional design.

Taken together, the previous literature can also go some way to explaining our more specific mediation effects. Namely, we found that demoralization, but not perceived risk of COVID-19, mediated an effect between RWA and future anxiety. This finding should be relieving, in that despite RWA being associated with an easing in negative psychological outcomes, the perceived risk of the threat remains the same regardless of an individual's level of RWA.

In our study, the role that RWA played by impacting future anxiety can be interpreted as the result of an individual's need to experience more control of the situation and find an order in the chaos of events when these are perceived as undetermined, threatening, and uncertain. The COVID-19 pandemic surely represented a core threat to the feeling of personal control, which might have forced people to reduce the subjective feeling of lack of control through other ways, such as abiding by social norms or enhancing ingroup membership (Scandurra et al., 2022, 2023).

Ultimately, our core thesis is that RWA attitudes, behaviors, and dispositions can be regarded as coping strategies, which are used to face the uncertainties deriving from threatening situations, such as the COVID-19 pandemic. The loss of control and fear that are associated with COVID-19 might in fact be dealt with by abiding by strict rules as well as by reinforcing ingroup membership and marginalizing

outgroup members. The fact that RWA was indirectly and directly associated with lower levels of anticipated future anxiety might therefore be interpreted as the result of the power that citizens embracing RWA behaviors believe to muster by utilizing this coping strategy, which might apparently seem to prevent the person from consciously dealing with a sense of uncertainty and loss of control. As a coping strategy, RWA seems indeed to give people the impression to feel stronger and face the uncertainties of critical situations, especially those—such as the COVID-19 outbreak—where nothing certain can be assured, thus defending themselves from uncertainty and conflict in their outlook.

Doise (1986) distinguished four levels of explanation in the field of social psychology. These refer to the intra-individual level (i.e., how an individual perceives or behaves in the social environment), the inter-individual or situational level (i.e., how individuals act as they are embedded in the social environment), the positional level (i.e., which position individuals occupy within society, which includes status differences and intergroup differentiation), and the ideological level of explanation (i.e., the social beliefs systems and the representations of societal values and norms shared by individuals belonging to a specific society) (Doise & Valentim, 2015).

We argued that RWA might represent a coping strategy to face threatening situations such as that produced during the COVID-19 pandemic period. In addition to this intra-individual explanation, we may further argue that, at an inter-individual or situational level, RWA beliefs were endorsed by groups of people that consistently referred to authoritarian values not only to cope with the danger produced by the pandemic, but also to marginalize all those individuals who minimized the impact of COVID-19 on the health of people that were affected by it. As an example, the predominant group in the Italian population defended the scientifically proven benefits of vaccines and were thus prone to marginalize the so-called "No-Vax" movements that criticized the prevalent belief that vaccines could be the solutions to overcome the pandemic emergency. At a societal level, in turn, the dominant group appeared to endorsed RWA beliefs to maintain the status quo against those groups of people that did not stick to the rules imposed by the Italian government, for instance condemning those who did not wear the mask or went outside the allowed geographical limits of their cities. This had strong implications in the Italian social environment, since these minorities were discriminated against on the basis of their personal beliefs, and were treated with prejudiced attitudes by the dominant group in the power structure of Italian society.

The rise of the extreme right—along with authoritarian neoliberalism (Bruff, 2013)—across the world might also be viewed in light of our results. In addition to the COVID-19 emergency, the presence of threatening world conditions such as international conflicts, uncontrolled migrations, and financial and economic crises (such as that occurred in 2007) have been progressively followed by the establishment of more authoritarian governments across the world, possibly supported by citizens that endorsed RWA beliefs deemed to protect their collective security (Repucci & Slipowitz, 2022). Interestingly, Pascale (2019) noticed that the rise of right-wing governments was accompanied by the weaponization of language, which was used to foster propaganda, disinformation, and censorship of outsider voices. Right-wing political governments also tend

to strongly emarginate and be prejudicial against specific outgroups such as ethnic and sexual and gender minorities, which are regarded as subverters of the dominant norms and values. Notably, Pacilli et al. (2022) found that COVID-19 anxiety and RWA predicted, among other factors, antipathy toward immigrants and sexual minorities. In this regard, the social pressure to conform to the established social norms renders social minorities such as LGBTQ + individuals more vulnerable to experience negative outcomes in terms of mental health and quality of life (e.g., Baiocco et al., 2023; Bochicchio et al., 2019; Scandurra et al., 2019, 2020; Mezzalira et al., 2023).

Indeed, the macroscopic changes that the world is facing today might render individuals more prone to perceive various conditions (e.g., wars, migrations, the climate change, and financial uncertainties) as threatening with respect to their survival as a dominant group. For instance, war has typically the effect of orienting the population to view the enemies as a nonhuman mass that needs to be destroyed in order for one's own country to preserve their status quo and collective security. Also, migrations can produce in some individuals the idea of their life space being invaded, with the population's resources being exploited by the "strangers." This, in turn, might lead individuals to endorse RWA beliefs to face future anxiety and to protect their national identity, thus viewing immigrants as the subverter of their collective security. In a longitudinal study, Sibley and Duckitt (2013) found that in a period of financial crisis and economic instability associated with systemic uncertainty, individuals' dangerous worldview prospectively predicted the endorsement of RWA beliefs, and that low openness predicted RWA also independent of its effect on dangerous worldview, thus confirming previous literature positing that social conformity predicts RWA independent of worldviews (Duckitt, 2001).

Our study, although illuminating, was not without its limitations. The first limitation is the cross-sectional design, that limits us from understanding how variables are changing over time or as threat dissipates. In this vein, we had to rely on international research to infer longitudinal effects (Pazhoohi & Kingstone, 2021; Winter et al., 2022b). In future research, now that an effect is established, it would be worth pursuing longitudinal studies to understand attitude shifts over time, and further investigate the mediating role of demoralization. Another consideration may be pooling findings, including those international longitudinal studies, to meta-analyze effects internationally. Differences in threat, through say number of cases, fatalities, and so forth, would be a worthy correlate to investigate through meta-analysis. A second limitation is that we have inferred RWA is countering a loss of personal control over a threatening situation, but we did not collect any measures of this perception in the current study. We would direct future research towards understanding the exact means by which RWA is affording a level of perceived protection, reducing anxiety and boosting morale. This can be achieved by collecting questions on a control-based construct, how individuals perceive sacrificing their autonomy (i.e., submitting to authority), and what they believe they achieve from their attitudes and actions. This is all the more relevant since, as a multi-faceted construct, perceived authority is crucial in influencing obedience and disobedience (Fattori et al., 2015).

Conclusions

In conclusion, RWA may represent a protective mechanism that defends the individual from fear and insecurity contributing to a future anticipation of anxiety. Accordingly, strong RWA dispositions are associated with lower demoralization in the face of threat, presumably by maintaining a sense of control. Our results showed indeed that RWA indirectly impacts on future anxiety through the mediation of demoralization (but not of perceived risk), whilst also being directly associated with future anxiety. RWA attitudes, such as abiding by strict social norms and enhancing ingroup membership, can in fact aid the person in apparently mustering the strength to mitigate future anxiety. We have generated some support that RWA could theoretically function as a coping strategy that people tend to use when anxiety threatens to take over their security and stability, such as in uncertain and anxiety-filled situations such as that represented by the COVID-19 pandemic outbreak. Whether this generalizes across a myriad of political conditions, geographically and temporally, will be vital consideration of future study.

Declarations

Ethics Approval Ethical approval was granted by the departmental ethics committee within the University of Calabria (protocol number 8104/2020). The study was designed in accordance with the Declaration of Helsinki and in respect of the EU General Data Protection Regulation.

Consent to Participate and for Publication By clicking on the link provided, participants were directed to the first page of the survey containing the informed consent of the study, its objectives, benefits, and risks, information about researchers, and their emails and telephone numbers. Furthermore, in the informed consent was clearly reported that the data would have been published in scientific journals and that the data would have been analyzed in aggregate ways. After reading all information, participants gave their consent to participate in the survey by clicking "I accept to take part in the survey."

Conflict of Interest The authors declare no competing interests.

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