

Post-pandemic world: Individual and political consequences of the Covid-19 pandemic

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Abstract

The Covid-19 pandemic may bring a series of specific individual, psychosocial, and political changes around the world. This is because human beings have a behavioral immune system that allows them to modify their behavior to avoid possible threats of contamination. It is known that outgroup individuals can be carriers of germs for which there are no immune agents to fight, and therefore, people tend to distance themselves from these individuals. This change in behavior can lead to greater xenophobia, ethnocentrism, and prejudice against social minorities, reflecting more conservative and authoritarian political directions. Thus, this article aimed at addressing, based on a theoretical framework, possible individual, social, and political consequences of the context caused by the pandemic. For this, studies on contamination risk and prevalence of pathogens in general will be discussed, as well as recent studies on Covid-19 and its individual and psychosocial consequences.

Keywords: covid-19; conservatism; authoritarianism; personality; biopsychosocial.

Resumo

Mundo pós-pandemia: Consequências individuais e políticas da pandemia Covid-19. A pandemia de Covid-19 pode desencadear uma série de mudanças individuais e políticas específicas ao redor do mundo. Isso porque seres humanos possuem um sistema imunológico comportamental que os permite modificar seus comportamentos para evitar possíveis ameaças de contaminação. Sabe-se que indivíduos desconhecidos e pertencentes a outras coalizões podem ser portadores de germes para os quais não se tem anticorpos para combater, e, por isso, as pessoas tendem a se afastar desses indivíduos. Essa mudança de comportamento pode levar a maior xenofobia, etnocentrismo e preconceito contra minorias sociais, refletindo direcionamentos políticos mais conservadores e autoritários. Assim, o objetivo do presente artigo é abordar, com base em referencial teórico, possíveis consequências individuais, sociais e políticas do contexto provocado pela pandemia. Para isso, são discutidos estudos sobre risco de contaminação e prevalência de patógenos em geral, como também estudos recentes sobre a Covid-19 e seus reflexos individuais e psicossociais.

Palavras-chave: covid-19; conservadorismo; autoritarismo; personalidade; biopsicossocial.

Resumen

Mundo post pandémico: Consecuencias individuales y políticas de la pandemia de Covid-19. La pandemia de Covid-19 puede desencadenar una serie de cambios de política individuales y específicos en todo el mundo. Esto se debe a que los humanos tienen un sistema inmunológico de comportamiento que les permite modificar su comportamiento para evitar posibles amenazas de contaminación. Se sabe que individuos desconocidos pertenecientes a otras coaliciones pueden ser portadores de gérmenes para los que no se tienen anticuerpos que combatir, por lo que las personas tienden a alejarse de estos individuos. Este cambio de comportamiento puede conducir a una mayor xenofobia, etnocentrismo y prejuicios contra las minorías sociales, reflejando direcciones políticas más conservadoras y autoritarias. Así pues, el objetivo de este artículo es abordar, con base en el marco teórico, las posibles consecuencias individuales, sociales y políticas del contexto provocado por la pandemia. Con ese fin, se examinan los estudios sobre el riesgo de contaminación y la prevalencia de los patógenos en general, así como los estudios recientes sobre el Covid-19 y sus reflejos individuales y psicosociales.

Palabras clave: covid-19; conservadurismo; autoritarismo; personalidad; biopsicosocial.

In the 14th century, Europe was ravaged by the Black Death. The outbreak killed more people than the two world wars combined centuries later. The resulting crisis was not just sanitary, but also economic, social and political. The social upheaval has reached specific groups. For example, European Jews were accused of spreading the disease, prompting a kind of “witch hunt” (authors’ emphasis; cf Cantor, 2002). This anecdotal example illustrates how, in times of epidemic, individuals tend to isolate themselves in their own social coalitions (e.g., of religion and nationality), harassing strangers belonging to other groups (e.g., Jews) (Choi, Poertner, & Sambanis, 2019). This is part of the tribal nature of *Homo sapiens* and continues to be reflected today (Clark, Liu, Winegard, & Ditto, 2019; Schaller & Park, 2011).

Regarding this tribal nature, it is emphasized that tribalism can be defined as intergroup conflict or, more precisely, as a tendency for cooperation between individuals forming coalitions that will compete with other groups for resources, territories, etc. (Clark et al., 2019). The coronavirus disease (Covid-19) pandemic is fertile ground for the increase of such tribal behavior that manifests itself in humans in situations of risk of contamination (Schaller & Park, 2011; Troisi, 2020), since the context demands, between many imperatives, a permanent state of alert regarding the physical proximity of individuals. Avoiding contamination by infectious diseases that can be transmitted through social contact can be one of the adaptive functions of typical human tribal behavior (Clark et al., 2019; Schaller & Park, 2011). One of the adaptive benefits of this behavior is to decrease the chances of contagion, facilitating greater social withdrawal of individuals from rival coalitions (Blagov, 2020; Clark et al., 2019; Schaller & Park, 2011; Sorokowski et al., 2020). While Jews in the Middle Ages suffered the consequences of these trends due to the fear of contamination, it is possible that during the Covid-19 pandemic prejudice and discrimination affected, in similar ways, different groups (e.g., immigrants, homosexuals) (Kiss, Morrison, & Morrison, 2020; Schaller & Park, 2011).

Different predispositions to intergroup conflict and intragroup favoritism are related to basic emotional characteristics that differ between individuals, such as their levels of sensitivity to aversive stimuli. Such basic individual characteristics, in turn, are associated with different personality characteristics, such as less extroversion, less openness and greater neuroticism (Tybur, Çınar, Karinen, & Perone, 2018). And, in turn, these personality differences can also explain political trends such as conservatism and authoritarianism (Conway, Woodard, Zubrod, & Chan, 2020; Terrizzi, Shook, & McDaniel, 2013).

In short, historical moments (Cantor, 2002) and studies on behavior in the presence of contamination risk indicate that the Covid-19 pandemic may lead not only to a wave of greater prejudice and discrimination, but also to a possible political shift towards greater conservatism and authoritarianism (Crowson, Thoma, & Hestevold, 2005; Murray, Schaller, & Suedfeld, 2013). Therefore, this article aimed at addressing, based on a theoretical framework, possible individual, social, and political consequences of the context caused by the coronavirus disease (Covid-19) pandemic, discussing relevant studies in the literature. More specifically, experimental, and correlational studies that investigate the influence and association of pathogen risk perception (and pathogen prevalence data) with individual, interpersonal, and political variables will be used (e.g., Ang, 2020; Blagov, 2020; Bogg & Milad, 2020; Conway et al., 2020; Sorokowski et al., 2020).

Despite the scarcity of studies, this article also considered the few published studies on Covid-19 risk perception and psychosocial aspects of interactions between individuals and their contexts. Finally, research questions will be raised, mainly on the perception of risk of pathogens and political orientation, seeking to clarify these socio-environmental contexts. It is important to emphasize that this study starts from an evolutionary perspective, interested in understanding the ultimate causes of human behavior in each context (Mayr, 1961), which collaborate in elucidating the proposed theme without, however, justifying the various forms of hostility between groups.

Table 1. Table with Definitions of the Main Constructs that Make Up this Article, Presented in Alphabetical Order

Construct/Concept	Definition	Reference
Aversion	Emotional reaction that protects against contamination	Oaten, Stevenson, & Case, 2009
Authoritarianism	Submission to authority, conventionalism, aggressiveness towards divergent individuals/ideas	Costello et al., 2021; Manson, 2020; Murray et al., 2013
Intergroup conflict	Avoidance and harassment of individuals from other social coalitions	Filip-Crawford & Neuberg, 2016; Kim et al., 2016; Yamagata et al., 2020
Conformity	Obedience to tradition and social norms	Murray et al., 2011; Wu & Chang, 2012
Political conservatism	Conservation of institutions, traditional morals, anti-immigration policies, liberal economics	Crowson et al., 2005
Religious conservatism	Adherence to practices, customs, beliefs, and morality specific to a religion	Terrizzi et al., 2012
Social conservatism	Conservation of social norms, traditionalism, intra-group favoritism, preservation of the status quo	Crowson et al., 2005; Terrizzi et al., 2013
Intra-group favoritism	Getting closer to and benefiting individuals in the same social coalition	Filip-Crawford & Neuberg, 2016
Pathogens	Disease-causing microorganisms	Schaller & Park, 2011
Personality	Basic traits stable over time	Goldberg, 1993; Pervin & John, 2009
Behavioral immune system	Psychological mechanism that detects pathogen clues and promotes behaviors avoiding contamination	Schaller & Park, 2011

Behavioral immune system

To discuss the psychosocial effects of the prevalence of pathogens, it is necessary to explain how the organism detects and responds to contamination clues, and to understand the role of pathogens in human evolution. Before the organism is invaded by microorganisms that activate the immune defense, human beings use behavioral strategies that help to avoid contamination. For example, people tend to move away from both sources of contamination – places or objects – and people who show signs of contamination. The reaction can include facial expressions of disgust and even physiological reactions (Shook, Oosterhoff, Terrizzi, & Clay, 2018).

This set of aversive behaviors activated in face of various stimuli is called the behavioral immune system, which consists in psychological predispositions that allowed human beings to avoid contamination (Schaller & Park, 2011). Historical events, such as the arrival of the Spanish colonizers in America, suggest that, before the development of vaccines and antibiotics, contact with unknown individuals may have been an often lethal problem. The arrival of the Spanish colonizers caused the death of a large part of the natives of the American continent, mainly because of pathogens typical of the European continent, to which the native population did not have antibodies (Diamond, 1997).

Isolated historical events are not evidence for the existence of the behavioral immune system, but

several pieces of empirical evidence suggest its existence (Schaller & Park, 2011; Shook et al., 2018). People tend to have aversive responses to individuals who have been ill recently, as well as to shy away from photos of mutilated people (Shook et al., 2018). But the signs perceived as a threat of contamination are not unequivocal. Individuals can suffer mutilation of body parts as a result of an accident, not because of an illness. In terms of cost-effectiveness, this ambiguity has no significant implications, because the behavioral immune system works according to the smoke detector principle (Schaller & Park, 2011). According to this principle, false positives are less harmful than false negatives. False positives are analogous to running away from a rope on the ground before discovering that it is a rope or a snake. False negatives are analogous to mistaking the snake for a rope and being mortally bitten. In short, by operating on the smoke detector principle, the behavioral immune system is shaped to react aversively to signs that indicate the presence of pathogens, even if the signs are not confirmed as an effective threat (Schaller & Park, 2011).

The interference of pathogens in individual aspects

Sensitivity to Aversive Stimuli

As mentioned, aversive reactions are one of the basic components of the behavioral immune system.

In other words, such physiological reactions can occur both before food and people who may be contaminated, and this includes unknown individuals, from other social coalitions (Shook et al., 2018). This may indicate that such aversion reactions can be aroused in the face of psychological difference in relation to other individuals, which is the case of strangers and members of other groups. People more sensitive to aversive stimuli and individuals affected by aversive stimuli (experimentally) see themselves as psychologically more distant from other individuals (Mentser & Nussinson, 2020). In other words, psychological distance is related to aversion between individuals – as if these individuals were sick and offered risks – and this can have relevant interpersonal consequences. A study of more than 100,000 people in more than 80 countries confirmed that people trust each other less in countries with a higher prevalence of pathogens, and that trust further declines between groups (Zhang, 2018).

Sensitivity to Aversive Stimuli and Personality

Different levels of sensitivity to aversive stimuli are associated with differences in personality. Studies indicate that personality can be defined as a set of psychological traits and predispositions that are stable over time that are grouped into independent dimensions, following the Big Five Personality Factors model (Goldberg, 1993; Pervin & John, 2009), namely: Extroversion, which concerns how much people enjoy interpersonal contact and socialization; Conscientiousness, which is the tendency to be disciplined and ruled; Openness to new experiences, which refers to how much a person enjoys unconventional sensory and intellectual experiences; Agreeability, which refers to how kind and cooperative a person is; and, finally, the Neuroticism factor points to tendencies to demonstrate emotional instability and experience negative feelings (Pervin & John, 2009). As aversion levels are associated with the presence of pathogens, there is also an association between personality and the presence of pathogens (Shook et al., 2018; Tybur et al., 2018).

If sensitivity to aversive stimuli is high, then less extroverted, less open to new experiences, less emotionally stable, and more conscientious people tend to be (Oosterhoff, Shook, & Iyer, 2018; Tybur et al., 2018). These correlations make adaptive sense, because less extroverted and less open people tend to be less exposed to unfamiliar people and places that might be considered contamination threats to them. People who are less emotionally stable or more conscientious will

tend to conjecture more about the surrounding environment and redouble preventive care (Oosterhoff et al., 2018; Tybur et al., 2018).

Avoidance of pathogens and interpersonal interaction

Intergroup Conflict

Individuals with greater sensitivity to aversive stimuli respond even more aversively to possible sources of contamination, from food (Kollareth & Russell, 2019) to unknown people (such as immigrants; Aarøe, Petersen, & Arceneaux, 2017). Such reactions are associated with specific interpersonal tendencies, such as low extraversion (Schaller & Murray, 2008). This set of characteristics is associated with intragroup favoritism and intergroup competition (Oosterhoff et al., 2018; Shook et al., 2018). In other words, faced with the threat of pathogens, individuals who show more intense aversion reactions approach their coalition, and distance themselves from unknown people and belonging to groups that represent values and ideas different from their own. This may explain the increase in prejudice and discrimination between groups in this supposedly aversive type of scenario (Oosterhoff et al., 2018; Shook et al., 2018).

Evidence suggests that the behavioral immune system helps to understand prejudice and discrimination behaviors, even without direct evidence of the presence of pathogens (Petersen, 2017). In a study by Petersen (2017), white American participants were presented with photos and phrases spoken by white individuals and Indian individuals. Some photos, of both whites and Indians, had skin marks, an ambiguous sign of illness. The experimental task consisted of correctly associating individuals with the displayed sentences. The results showed that the greater the aversion to pathogens, the more participants (all were white) confused phrases said by “healthy” Indians (without skin marks) with phrases said by “sick” whites (with skin marks). In other words, participants more often confused “sick” people from their own social coalition (photos of white individuals) with healthy individuals from outside their own coalition (photos of Indian individuals). This result was interpreted as an indication of the activation of the behavioral immune system in the face of the presence of these individuals from other coalitions (Petersen, 2017).

Xenophobia and Ethnocentrism

Intergroup conflict arising from the activation of the behavioral immune system can manifest itself in the form of prejudice and discrimination against specific social groups. This is the case of xenophobia (distrust, prejudice and/or discrimination by foreigners) and ethnocentrism (considering your ethnicity or nationality as more important than others). During an Ebola outbreak, natives from some regions of Africa were discriminated against in places not yet contaminated by the virus (Kim, Sherman, & Updegraff, 2016). In that same study, researchers concluded that the greater the perceived risk of Ebola, the greater the xenophobia (Kim et al., 2016). In another study, the perception of danger of contamination and the fear of dying were greater, the greater the ethnocentrism of the participants (Navarrete & Fessler, 2006). A similar study indicated that individuals who reported a greater aversive response to stimuli associated with contamination also reported a more negative attitude towards immigrants (Aarøe et al., 2017).

A mere symbolic suggestion associating immigration with contagious diseases seems to influence the attitude. For example, in one study, individuals read fictional articles metaphorically comparing immigration to a disease advancing and infecting the inhabitants of an entire country. Participants who were exposed to this stimulus had a more negative attitude towards immigration, when compared to participants who read news without metaphors. Such results may suggest that, at least in part, the cognitive mechanisms behind xenophobia may be the same ones responsible for preventing contamination (Brown, Keefer, Sacco, & Bermond, 2019). But the researchers noted that it was not possible to determine whether the aversive response was driven by literal concern with the disease or metaphorical framing of the target domain or simply because it incidentally generated a real concern with the disease (Brown, et al., 2019).

Homophobia

Likewise, homophobia and other forms of prejudice against social minorities can be partly explained by activation of the behavioral immune system. Homophobia can be defined as negative or unfavorable attitudes towards homosexuals or towards people who, whether homosexual or not, defend the rights of these groups. Homophobic people believe that children who come into contact with gays and lesbians can become homosexuals too (Filip-Crawford & Neuberg, 2016).

An example of this is the refusal of some parents to let their children be taught by homosexual teachers, as they fear that their children will have their sexual orientation altered by living together. This fear tends to be accompanied by the belief that people become homosexual because they were sexually abused in childhood (Filip-Crawford & Neuberg, 2016). These authors suggest that homophobic people use a “contamination model” to explain both same-sex attraction and the risk of “transmitting” homosexuality to other people (i.e., it is something that is acquired in childhood through sexual abuse and that, once developed, can be transmitted via contact) (Filip-Crawford & Neuberg, 2016)¹.

In 2014, Adams, Stewart and Blanchard subjected a group of participants to the odor of an aversive substance. This experimental manipulation caused individuals subject to it to report more unfavorable attitudes to same-sex marriage, compared to the control group. Prejudice against transsexuals may also be related to the activation of the behavioral immune system, according to a study that showed that the greater the sensitivity to aversive stimuli, the more negative the attitude towards the rights of this group (Miller et al., 2017). Although there is preliminary evidence suggesting a relationship between transphobia and the behavioral immune system, there are still few studies, specifically on this.

Religion

Religious Conservatism

The prejudice against gay people often comes from individuals who endorse types of conservatism (see Figure 1), such as religious conservatism (Terrizzi, Shook, & Ventis, 2012). This could suggest that religious traditionalism may have an association with the behavioral immune system. The symbolism of religions already seems to provide some clues to this. Many religions feature rituals reminiscent of pathogen purification strategies (Terrizzi et al., 2012). For example, in some expressions of Christianity, infants are baptized in ceremonies that comprise bathing the baby or immersing its body in water. For some Christians, this bath symbolizes cleansing from spiritual impurities, analogous to purification from pathogens. Religious metaphors refer to the purification of sins as if these sins were caused by some infectious agent (Terrizzi et al., 2012).

In this sense, the violation of religious norms elicits aversive reactions, as does contact with potential sources of contamination (Terrizzi et al., 2012). Not

coincidentally, people who come into contact experimentally with aversive stimuli are more unfavorable to same-sex marriage and more believing in the veracity of biblical narratives (Adams et al., 2014). Kollareth and Russell (2019) state that North Americans and Indians (individuals from countries with different predominant religions) react aversively to violations of sacred (religious) norms and the presence of pathogens. According to another study, people tend to show more fear of sinning when they are experimentally exposed to signs of pathogens (Stewart, Adams, & Senior, 2020). In other words, these studies suggest a relationship between the behavioral immune system and religions. More specifically, religious moral belief systems may result from the activation of basic biological systems (such as aversion) associated with the behavioral immune system (Stewart et al., 2020).

We should note that this analysis does not reduce the religious phenomenon to the behavioral immune system. What such studies allow suggesting is that at least part of the psychological mechanisms underlying elements of religious faith and practice may be the same as those present in anti-contamination reactions (Terrizzi et al., 2012).

Political Orientation

Conformity

Social conformity is a fundamental element not only in religious conservatism – as already mentioned, but also in any other type of tradition. This is because conformity refers to the extent to which individuals tend to conform by following social norms and accepting the command of authorities, whether religious, political or of another nature (Wu & Chang, 2012). While challenging established norms and innovation are vital to the development of a society (Murray, 2014), in some contexts decreasing such innovation and increasing conformity may pay off more. In contexts with an elevated risk of contamination, there are benefits to greater social conformity because following an authority decreases the innovative – and consequently risky – behaviors of individuals, also decreasing the risk of contamination (Schaller & Murray, 2008).

Conformity seems to be related to the behavioral immune system. One study showed that the greater the history of contagious diseases across countries, the greater the conformity of individuals (Murray, Trudeau, & Schaller, 2011). There is also experimental evidence

of the association between pathogens and conformity: similarly, individuals presented with stimuli associated with contamination exhibit greater social conformity (Wu & Chang, 2012). The most controversial part of this set of behaviors is the greater adherence of populations with prominent levels of conformity to authoritarianism in the face of contamination risk (Murray et al., 2013).

Social Conservatism

Religious conformity and conservatism are part of social conservatism, characterized by adherence to traditional (religious, most of the time) beliefs, values, and practices, or more generally, by defending the status quo (see Figure 1). Faced with threats (such as diseases), individuals tend to become more socially conservative, which is explained by the apparent predictable safety of following strategies previously established and followed by the majority (Schaller & Murray, 2008; Terrizzi et al., 2013), which may have worked to decrease the risks of contamination for most of human history (Terrizzi et al., 2013). In this context, contact with unfamiliar people can be fatal (Diamond, 1997), which explains the association between conservatism and intragroup favoritism, characterized by hostility towards individuals from other coalitions (e.g., immigrants, gay people, among other groups) (Adams et al., 2014; Brown et al., 2019; Kiss et al., 2020; Miller et al., 2017).

It is no coincidence that more socially conservative people also tend to have low levels of extroversion and openness to experiences, and high levels of neuroticism and conscientiousness, which are personality dimensions associated with contamination avoidance (Terrizzi et al., 2013). Corroborating this, a study conducted in 30 countries showed that the higher the prevalence of pathogens, the more conservative the countries are (i.e., the greater the population's adherence to traditional values) (Tybur et al., 2018).

In sum, studies on conformity and conservatism (social and religious), and behavioral immune system show conservative behaviors generally function as (non-conscious) strategies to decrease contamination. This relationship makes sense because tradition, conceived as a set of rules that have survived the tests of time, would be more reliable than recent knowledge. This would help explain why in times of risk many people rely more on authorities and tradition, and less on scientific evidence.

Authoritarianism

Although not synonymous, social conservatism is associated with authoritarianism (Crowson et al., 2005). Authoritarian individuals exhibit higher levels of the same individual and social characteristics associated with conservatives, as cited in previous sections. Therefore, it is concluded that the higher the perceived risk of contamination, the higher the authoritarianism. Individuals with a greater tendency to endorse

authoritarianism (and with a more authoritarian personality) tend to avoid more contact with sources of contamination. The association between authoritarianism and pathogens may explain the greater xenophobia of authoritarian countries (Murray et al., 2013). In this same vein, countries with a greater history of contagious diseases tend to be less democratic, more authoritarian, less economically free and tend to curtail press freedom more (Kusano & Kemmelmeier, 2018).

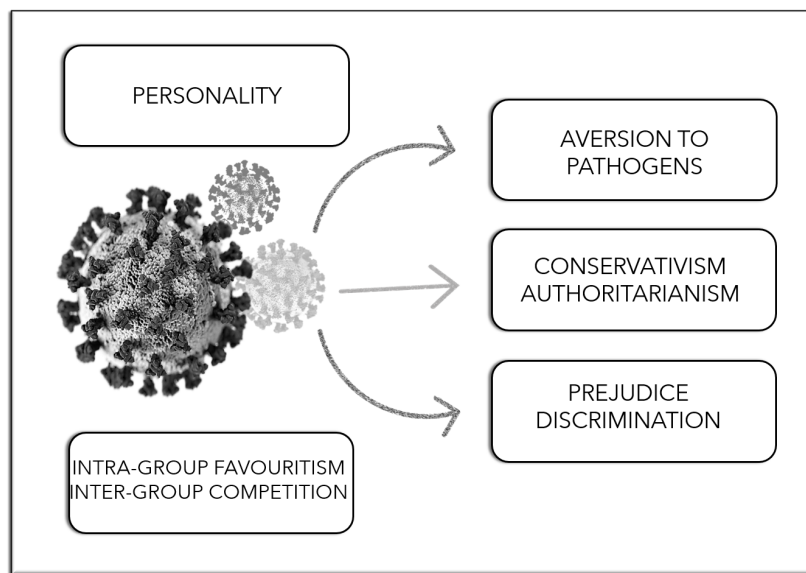


Figure 1. Graphic Diagram Proposed by The Authors to Illustrate Approaches in the Manuscript (Arrows Are Purely Illustrative, I.E., They Do Not Assume Causality).

Covid-19

Personality and Preventive Behavior

The Covid-19 pandemic offers a propitious setting to investigate these behavioral immune system associations with psychosocial and political aspects. More specifically, these associations of Covid-19 risk are likely to be like those found in the studies cited above on perceived risk of contamination associated with psychosocial variables (i.e., aversion, personality, intragroup favoritism, and intergroup conflict) and political preferences. However, until May 2020, there were few published studies on coronavirus risk perception and behavioral immune system. Most of this research investigates associations with personality and political positioning, with several being about how these variables explain and relate to population adherence to coronavirus prevention norms.

A study conducted in Brazil showed that the more extroverted people are, the fewer people practice social isolation (Carvalho, Pianowski, & Gonçalves, 2020). Another study, conducted with a North American sample, showed that individuals with higher mean levels of Neuroticism perceived the pandemic as more dangerous, but, paradoxically, they washed their hands for less time, disinfected objects less often, and touched their face more, which increases the risk of contamination. On the other hand, people with higher levels of Conscientiousness, Openness, and Extroversion engaged more in these preventive rituals. Unexpectedly, Extroversion showed no correlation with social isolation (Bogg & Milad, 2020). A similar study with a Danish sample found equivalent results: while Extroversion was not associated with social isolation, the greater the Openness to experiences, the greater the engagement in social isolation (Zettler, Schild, Lilleholt, & Böhm, in press).

Political Orientation

Research on Covid-19 and individual variables shows a less defined and less theoretically corroborated network of associations than research on pathogen prevalence in general. This may be due to the nature of the pandemic caused by the virus responsible for Covid-19. Science and technology make it possible for people to be able to defend themselves from pathogens by taking drugs, but as there is still no drug or vaccine against Covid-19, social isolation has been established as one of the most appropriate preventive measures to avoid contagion and for health systems to cope with the number of infected people requiring care.

In this context, the state intervenes through decrees that establish isolation and, in some places, total confinement, called lockdown. This can have consequences for the way people from different political spectrums tend to react to the threat of the virus. For example, one study has shown that more politically conservative North Americans (see Figure 1) tend to underestimate the threat of Covid-19, mainly for reasons of political disagreement over state intervention (Conway et al., 2020). It makes sense, considering that more politically conservative individuals tend to attribute less credibility to mainstream media reports about pandemic risks (Rosenfeld, Rothgerber, & Wilson, 2020).

Another study, conducted with North Americans and Poles, corroborated other findings on political positioning and behavioral immune system. Participants who read an article about the COVID-19 pandemic showed higher levels of conservatism and presented themselves as more willing to vote for the conservative candidate in the presidential election (Karwowski et al., 2020), in the samples from both countries. In the same vein, another study showed that people exposed to news about Covid-19 showed a more unfavorable attitude towards immigrants (Sorokowski et al., 2020).

Discussion and conclusion

This article aimed at addressing, based on a theoretical framework, individual, social, and political consequences of the context caused by the coronavirus disease (Covid-19) pandemic, discussing relevant studies in the literature. Considering other studies on the behavioral immune system, it was expected that the still few psychology studies on the pandemic would corroborate the associations found in studies on reactions to the risk of contamination. Although several expected

associations were indeed found in the literature, the results showed a much more complex scenario than expected in the Covid-19 pandemic.

The evidence on conservatism and contamination risk is mixed. Some evidence has pointed to a higher perceived risk of Covid-19 contamination among conservatives and even a greater tendency to support right-wing or politically conservative candidates (Karwowski et al., 2020; Makhanova & Shepherd, 2020). But another study showed that conservatives underestimate pandemic risks and engage less in preventive behaviors (Conway et al., 2020) – contradicting predictions based on the behavioral immune system (Terrizzi et al., 2013).

Another prediction was that the risk of contamination would lead to more intergroup conflict (Kim et al., 2016; Navarrete & Fessler, 2006). Indeed, the greater the exposure to information about the pandemic, the more negative the attitude towards foreign groups (Sorokowski et al., 2020). In Japan, the increase in Covid-19 cases was associated with greater exclusion of immigrants and strangers, even if they were Japanese (Yamagata, Teraguchi, & Miura, 2020). This scenario is worrisome because besides prejudice being a problem alone, oppressed groups have more losses from the pandemic (Esses & Hamilton, 2021).

Faced with the risk of contamination, many countries not only become hostile towards immigrants but also become more authoritarian (Esses & Hamilton, 2021). During the pandemic, there was a greater endorsement of authoritarian policies and leaders on the right and left of the political spectrum (Manson, 2020). However, the greater support for left-wing authoritarianism was a surprise, as authoritarianism associates positively with right-wing positions (Crowson et al., 2005) – despite the example of China, an ideologically left-wing authoritarian country (Costello et al., 2021).

The present article is the first to examine possible psychological and political post-pandemic trends, with an analysis restricted to consequences predicted by the behavioral immune system hypothesis. The findings reveal the complex nature of the relationship between psychology and politics, with only part of the theoretical predictions having been corroborated in the Covid-19 pandemic. Thus, future empirical studies will be indispensable not only to improve the understanding of psychological mechanisms and behavioral consequences in the situation's face but also to better understand potential future political and social trends.

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¹ In this sentence, the terms in quotes are underlined by the authors.

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