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Of precarity and conspiracy: Introducing a socio-functional model of conspiracy beliefs

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Abstract

Conspiracy Beliefs (CB) are a key vector of violent extremism, radicalism and unconventional political events. So far, social-psychological research has extensively documented how cognitive, emotional and intergroup factors can promote CB. Evidence also suggests that adherence to CB moves along social class lines: low-income and low-education are among the most robust predictors of CB. Yet, the potential role of precarity—the *subjective* experience of permanent insecurity stemming from *objective* material strain—in shaping CB remains largely unexplored. In this paper, we propose for the first time a socio-functional model of CB. We test the hypothesis that precarity could foster increased CB because it undermines trust in government and the broader political 'elites'. Data from the World Value Survey ($n = 21,650$; Study 1, electoral CB) and from representative samples from polls conducted in France ($n = 1760$, Study 2a, conspiracy mentality) and Italy ($n = 2196$, Study 2b, COVID-19 CB), corroborate a mediation model whereby precarity is directly and indirectly associated with lower trust in authorities and higher CB. In addition, these links are robust to adjustment on income, self-reported SES and education. Considering precarity allows for a truly social-psychological understanding of CB as the by-product of structural issues (e.g. growing inequalities). Results from our socio-functional model suggest that implementing solutions at the socio-economic level could prove efficient in fighting CB.

KEYWORDS
conspiracy beliefs, ontological insecurity, precarity, socio-functional, trust

INTRODUCTION

The 2010–2020 decade has affected Western societies with political events propelled in part by conspiracy beliefs. Conspiracy beliefscan be defined as explanations of events involving a plot organized by powerful individuals pursuing a malevolent agenda (Keeley, 1999). Research on the renewal of domestic far-right and Islamist terrorism (START, 2021), the election of hardline right-populist leaders in several countries (e.g. Hungary, Poland, United States), the United Kingdom's 2016 referendum leading to its breakaway from the EU (i.e. 'Brexit') and the unprecedented wave of 'Yellow Vests' riots that shook France in 2018 (Mahfud et al., 2021; Wagner-Egger et al., 2022) systematically highlighted the key role of conspiracy beliefs. These conspiracies typically involve beliefs regarding the involvement of 'corrupt' Jewish bankers, the 'Satanistic' global elite or an alleged planned 'Great Replacement' of European natives by Muslim immigrants orchestrated by pro-immigration politicians (Barbier et al., 2021; Jolley et al., 2021; Kofta et al., 2020; Obaidi et al., 2021; Rousis et al., 2020). The 2021 Capitol attack in the United States was also motivated by the belief that the 2020 elections were rigged in favour of the Democratic party (Barry & Frenkel, 2021).

Social-psychological research has demonstrated that conspiracy beliefs can be seen as the by-product of intuitive reasoning (Swami et al., 2014), conflictual intergroup relations (Biddlestone et al., 2020), maladaptive coping strategies (Marchlewska et al., 2021), uncertainty, distrust (van Mulukom et al., 2022; Wagner-Egger et al., 2022) and cultural environments that promote these factors (Adam-Troian, Wagner-Egger, et al., 2020). Moreover, a substantial part of the literature has highlighted that conspiracy beliefs and mentality is favoured by pathological factors such as anxiety, paranoia and schizotypy as well as political factors such as perceived powerlessness and anomie (see Goreis & Voracek, 2019). Political science research conducted in the United States even points at specific elements of local cultures that favour the emergence of conspiracy beliefs, such as a paranoid style among mass opinion (Oliver & Wood, 2014) or ethnic prejudice (Morgan & Lee, 2019).

More than simple beliefs reflecting individual attitudes towards a given group (suspected of conspiring against the ingroup), conspiracy beliefs fulfil different functions and can be thought of as expressions of various motives crystallized in a single narrative. Conspiracy beliefs can help protect the individual self by deflecting blame from personal failure; they can buffer threats to the relational self by increasing social support through the expression of concerns shared by group members, and simultaneously serve to defend the collective self by blaming outgroups (Biddlestone et al., 2021), which explains the common antisemitic trope of many conspiracy narratives (but see Kofta et al., 2020). In fact, recent evidence suggests that events, which prompt control threats (e.g. reminders of historical trauma) may lead individuals from victimized groups to mobilize antisemitic conspiracy beliefs as a way to cope by increasing the illusion that at least some other group in society (i.e. Jewish people) is in control (Skrodzka et al., 2022). In addition to control motives, the need for a positive social identity may also foster conspiracy beliefs against outgroups (Grzesiak-Feldman & Kaminska-Feldman, 2005; Mashuri & Zaduqisti, 2014).

Moreover, conspiracy beliefs provide an insight into how the individual self relates to an ingroup embedded in a history of relations with other outgroups. As an illustration, case studies on the conspiracy narratives surrounding the war in Kosovo highlighted how Serbs' construction of NATO's intervention in this country as a 'Western' conspiracy took root in their imagined historical intergroup relations. For instance, these often drew upon the Fourth Crusade, during which a European army supposed to retake Jerusalem from Muslims ended up sacking Constantinople (Brown & Theodossopoulos, 2003).

Echoing these relational features, endorsement of these various conspiracy theories seems to be polarized along social class lines (Douglas et al., 2019). This is reflected in the finding that low-income and low-education are robust predictors of conspiracy beliefs (Uscinski, 2020; van Prooijen, 2017). Although they are crucial to understanding support for populist leaders and measures (e.g. anti-immigration policies; Muis & Immerzeel, 2017), unconventional political movements (e.g. the Yellow Vests; Adam-Troian et al., 2021) and even COVID-19 vaccine scepticism (Callaghan et al., 2020), these social class features of conspiracy beliefs remain less explored by social-psychological research (in comparison with cognitive, political or motivational factors). In this paper, we explore for the first time how the experience of *precarity*,

an important yet overlooked factor, might contribute to promoting conspiracy beliefs rooted in class antagonism and perceptions of relative deprivation between precarious individuals and non-precarious ones.

The social psychology of precarity

One of the first conceptualizations of precarity comes from early sociological studies of Algerian laborers' conditions in French Algeria (Bourdieu & Abdelmalek, 1964). Bourdieu and Abdelmalek's (1964) analysis relied on interview data from Algerian workers during the colonial period and led to the identification of two prototypical categories of labor as perceived and experienced by workers. A first 'traditional' type of labor summarized the condition of Algerian peasants, characterized by objective self-sufficiency, but more importantly maybe, by a subjective sense of stability and predictability due to the activity's reliance on seasonal rhythms. Opposed to this conception of work judged as ideal by participants was the so-called 'precarious' employment experienced by uprooted Algerian rural employees. This precarious employment was defined as characterized by isolation from one's relatives, dependency on the employer and a permanent sense of uncertainty (see Millar, 2017).

From early on, precarity was, therefore, conceptualized from a social-psychological standpoint, marked by a heightened sense of personal uncertainty and unpredictability in life circumstances, hence theoretically distinct from poverty exclusively (although the two are empirically correlated, see Lemke, 2016). Accordingly, we chose to define precarity as the subjective experience of permanent social and psychological insecurity, stemming from objective conditions of affiliative and economic deprivation (e.g. exploitation, colonial legacies, see Rua et al., 2022). These objective conditions emerge from labor characteristics (i.e. precarious work) such as job insecurity (e.g. part-time, short term), lack of benefits, low prestige and income (Castel, 2003; Kalleberg, 2011).

Recent developments on the concept have extended the notion of precarity. Beyond the sole domain of work and labour relations, precarity is a construct which, "*conjures life worlds that are inflected with uncertainty and instability*" (Waite, 2009, p. 416) and is now understood as an experience at the intersection of different spheres within individuals' lives. This broader conception of precarity considers that it "*inhabits everything from the global political economy to the vicissitudes of employment, health, social relations, self-perception*" (Ettlinger, 2007, p. 324). Precarity taps into the very feelings and perceptions associated with not being safe and secure, which can translate into subjective judgements of being on the verge of collapse (Philo et al., 2019) or in a permanent state of self-uncertainty (Söderström, 2019).

Precarity is thus associated with a sense of ontological insecurity and existential threat (Jonas & Fritsche, 2013; Kinnvall & Mitzen, 2020; Laing, 1960), which ultimately affects the way individuals project themselves in the future. In fact, recent research suggests that a lack of ability to project oneself into the future (i.e. to exert Time–Space Distanciation) is a distinct psychological signature of precarity, because precarity renders future time projection too costly (induces stress, see Schmitt et al., 2022). Besides this ability to project oneself into the future, ontological security refers to a "*person's fundamental sense of safety in the world and includes a basic trust of other people*" (Giddens, 1991, p. 38). In turn, this sense of trust is necessary to sustain individual psychological wellbeing but also to buffer existential anxiety and identity-uncertainty (see Kinnvall, 2004 for a similar argument).

The increase in socio-economic inequalities brought about by intense global macro-economic reforms (beginning in the 80 s; Piketty & Saez, 2014) has led to a generalization of precarity across so-called 'WEIRD' societies (Western, Educated, Industrialized, Rich, Democratic; Agius et al., 2021; Henrich et al., 2010). Because of this increase in prevalence, sociologists and demographers have considered the theoretical relevance of using novel social classifications based on the experience of precarity. Instead of using the traditional socio-economic classifications (i.e. low, middle, high SES), some researchers conceptualized the existence of a whole new class—defined by a lack of work-related security (e.g. no stable income, social safety net, upward social mobility), strong feelings of alienation and anger towards upper-classes (the 'precariat'; Standing, 2011).

Thus, precarity—as an objective life condition and a subjective life experience—can be thought of as an encompassing psychosocial construct. In fact, precarity allows for theoretically disentangling empirically distinct constructs, namely economic deprivation (i.e. poverty) from the experience of permanent insecurity. This is important because several analyses have highlighted how right-wing populist parties and measures do not really appeal to individuals in the poorest income brackets, but to those situated just above them (see Archibugi & Sorace, 2019 regarding the Brexit vote). In the U.S., for instance, Trump votes in 2016 were driven by increased support from the 'squeezed middle': the average American worker who earned a similar income in 2009 than in 1975 (Gifford, 2021). In France, the Yellow Vests movement grew out of the larger population of those just above the poverty line, under constant threat of falling below at any point (Mahfud et al., 2021).

To the extent that precarity increases people's feelings of anxiety, powerlessness, hopelessness and perceptions of anomie (Adam-Troian, Bonetto, et al., 2020; Sprong et al., 2019), it may be a potent driver of political extremism. As such, we argue that precarity is a crucial variable to understand the formation of populist and radical socio-political attitudes and may, therefore, be especially important to understand how individuals endorse radical beliefs about politics and society in the form of conspiracy theories.

From precarity to conspiracy?

Decades of research have identified three main classes of factors that are linked with conspiracy beliefs (Wagner-Egger, 2021): societal-political, cognitive-psychological and communicational. The communicational dimension encompasses the effects of internet access and social media on unfounded beliefs (e.g. Bronner, 2015). Dozens of studies have shown that cognitive biases, emotions (e.g. anxiety) and intuitive thinking are associated with conspiracy beliefs (Douglas et al., 2019; Goreis & Voracek, 2019), highlighting the importance of cognitive-psychological factors. Regarding the societal-political dimension, research indicates that people who are disadvantaged in society (e.g. lower SES, ethnic minorities; see for instance van Prooijen et al., 2018) endorse more conspiracy beliefs. As conspiracy beliefs can be defined as serious accusations of conspiracy without 'sufficient proofs', and very often target the elites (Wagner-Egger, 2021), there are thus reasons to consider conspiracy beliefs as irrational discourses of revenge for being in disadvantaged social positions. These disadvantaged social positions may be characterized objectively and subjectively.

Studies have repeatedly indicated that lower education levels are related to greater endorsement of conspiracy beliefs (Garrett & Weeks, 2017; Goertzel, 1994; Green & Douglas, 2018; Mancosu et al., 2017; Oliver & Wood, 2014; Radnitz & Underwood, 2015; Stempel et al., 2007; Swami et al., 2016; Uscinski & Parent, 2014; van Prooijen, 2017; van Prooijen et al., 2015). Since precarity fosters lower educational achievement by decreasing access to the economic and social resources required to succeed academically (Croizet et al., 2019; Goudeau & Croizet, 2017), it could hence exert a remote influence on conspiracy beliefs.

Low economic resources are also related to a higher level of conspiracy beliefs (Freeman & Bentall, 2017; Radnitz & Underwood, 2015; Uscinski & Olivella, 2017; Uscinski & Parent, 2014). In fact, the economic aspects of precarity may impact individual endorsement of conspiracy beliefs directly and indirectly through the effects of various dimensions of personality, cognition and health. This is not only true at the individual level but also at the country level, as several studies showed that the higher the economic inequalities in a country, the higher the endorsement of conspiracy beliefs (Cordonier et al., 2021; Drochon, 2018; Imhoff et al., 2022). Likewise, the perception of objective and subjective economic inequality on conspiracy beliefs has been proved to be related to greater conspiracy beliefs (Salvador Casara et al., 2022), both at the correlational and the experimental level (conspiracy beliefs increased when participants were presented with an imaginary country that suffered from more economic inequality compared to a less unequal imaginary country).

Although there is no direct evidence for this relationship, studies have highlighted that precarity facilitates known predictors of conspiracy beliefs. For instance, Obschonka et al. (2018) have demon-

strated how historical deindustrialization processes generate increased population anxiety and depression in former coal-mining areas, through intergenerational exposure to precarity and unemployment. Likewise, precarity can increase mental health issues, including psychotic symptoms (for a demonstration in the United States; see Wickham et al., 2014). Hence, there are reasons to believe that precarity could foster conspiracism through increasing risk factors for conspiracy beliefs, such as anxiety, schizotypy and paranoid ideation (Bruder et al., 2013; Fenigstein & Vanable, 1992).

In addition, the subjective experience of precarity may affect conspiracy beliefs. It is a well-established finding that perceptions of anomie fuel conspiracy beliefs through distrust towards politicians and authorities, feelings of loss of control and powerlessness, dissatisfaction in life, political alienation (Abalakina-Paap et al., 1999; Brotherton et al., 2013; Bruder et al., 2013; Goertzel, 1994; Green & Douglas, 2018; Imhoff & Bruder, 2014; Swami, 2012; Wagner-Egger & Bangerter, 2007; Wood et al., 2012).

Precarity, as it entails insecurity in several life domains, taps into the motivational processes at work behind conspiracy beliefs. Conspiracy beliefs help individuals cope with uncertain situations and stressful life experiences by giving them a sense of meaning and control (Marchlewska et al., 2018; see Douglas et al., 2017 for a review), while paradoxically degrading their mental health (i.e. manifested in a maladaptive form of coping; Marchlewska et al., 2021). Some studies showed that experiencing loss of control and threats to one's identity is related to conspiracy beliefs (e.g. Graeupner & Coman, 2017; van Prooijen & Acker, 2015; Whitson & Galinsky, 2008).

Moreover, individual need for physical safety and death-related anxiety are positive predictors of conspiracy mentality and endorsement of various conspiracy theories (Abalakina-Paap et al., 1999; Newheiser et al., 2011; Swami, 2012). It is thus possible that the sense of physical threat associated with precarity and low perceived SES (e.g. poorer health; Cundiff & Matthews, 2017) leads to increased conspiracy beliefs. In fact, the constant threats faced by poorer and lower-social status individuals explain why these groups develop more collectivistic values and group-based conceptions of their identity (Iacoviello & Lorenzi-Cioldi, 2019), which have been shown to directly predict conspiracy beliefs (Adam-Troian, Wagner-Egger, et al., 2020; van Prooijen & Song, 2021).

The present research: A socio-functional model of conspiracy beliefs

This brief overview of the literature suggests that both objective and subjectivefeatures of precarity could foster conspiracy beliefs endorsement. By considering for the first time the potential role of precarity, we aim to lay the basis for a socio-functional theory of conspiracy beliefs to explain why, despite the potential negative consequences on one's reputation (Lantian et al., 2018), believing in conspiracy beliefs is still attractive to individuals. The socio-functional model states that conspiracy beliefs may provide people with (1) an explanation of why they are disadvantaged in society, (2) liable individuals or groups for that disadvantage (scapegoating) and (3) a feeling of revenge, with the belief that in the future, conspirators will be caught and punished.

In this perspective, we argue that the exact actors, intentionality or details of a plot in a conspiracy narrative do not matter much to the believers. Instead, we propose that the common underlying theme behind conspiracy narratives, which is that some groups 'at the top' of society are trying to deceive or harm those precariously situated 'at the very bottom' (Nera et al., 2020), matters more to believers. This view fits recent evidence showing that the actual information value of a conspiracy narrative does not influence individuals' endorsement of it (Meuer et al., 2021). Instead, we argue that feelings of (dis)trust —rather than perceptions of meaning—may play an important role in understanding how precarity might relate to conspiracy beliefs (van Mulukom et al., 2020).

According to our model, the experience of precarity would generate strong feelings of distrust (Smith & Bohm, 2008). Indeed, perceptions of economic inequalities (which are higher among lower-income individuals, Knell & Stix, 2020) and real economic inequalities tend to foster a general lack of trust towards various social groups, especially those at 'the top' of society (see Sprong et al., 2019; Teymoori et al., 2017). In turn, this distrust would increase prejudicial intergroup attitudes based on class distinctions in the form

of conspiracy beliefs. Research does show that conspiracy beliefs can be considered as a form of inter-group prejudice (Chayinska & Minescu, 2018; Jolley et al., 2020; Sapountzis & Condor, 2013; Sternisko et al., 2020), and several studies have demonstrated that perceptions of relative deprivation, rather than actual socio-economic status (see Ogorzalek et al., 2020) can be a potent driver of intergroup prejudice (e.g. Guimond & Dambrun, 2002). Hence, conspiracy beliefs could reflect individual perceptions that their precarious situation is intentionally caused by other outgroups who hold more socio-economic and politi-cal power. These beliefs could occur if precarity fosters a greater sense of distrust towards the 'elites' (e.g. non-precariat outgroup members or individuals perceived as such) and related institutions.

This proposition is indirectly corroborated by the fact that, although anti-minority (downwards) conspiracy beliefs may vary along with conservative ideology, anti-elite (upwards) conspiracy beliefs are a common feature of both left- and right-wing extremists (which tend to be more prevalent among lower SES; Nera et al., 2021). More directly, well-established evidence positively linking poverty and distrust, whether interpersonal or political, suggests that precarity and distrust may display similar associations (De Courson & Nettle, 2021). Likewise, recent evidence demonstrates the existence of a positive link between economic inequality and conspiracy beliefs, mediated by perceptions of anomie (i.e. societal breakdown, which entails generalized distrust see Salvador Casara et al., 2022).

Additionally, in a socio-functional view, most conspiracy beliefs should be understood as extended intuitions and abusive generalizations stemming from a 'gut feeling' that may actually have a kernel of truth (e.g. experiencing feelings of existential threat, stemming from precarity; see Douglas et al., 2017). For instance, despite the fact that increase in economic inequality is due to an interplay between complex factors, it is still true that inequality and precarity are caused—in part—by the collective intentional behav-iour of corporate institutions and high-income individuals in society (e.g. tax-evasion; see Stiglitz, 2021). Thus, although conspiracy beliefs may seem irrational and exaggerated (e.g. far from tax-evasion), the group-level prevalence of such beliefs may objectively reflect one's group's decreasing socio-economic status and political power. Our approach is in line with the notion that given the "*apparently irrational language of conspiracy it is important to ask how such marginalised forms of thinking might be as a consequence of social precarity*" (Johnson-Schlee, 2019, p. 176). Far from innocuous, however, (Douglas et al., 2021) precarity-induced conspiracy beliefs can foster radical forms of political and collective action in attempts to actively chal-lenge the status quo (Imhoff et al., 2022; Rottweiler et al., 2022).

Considering these associations, we aimed to empirically test our model to provide the first evidence of a potential role of precarity-induced distrust in shaping conspiracy beliefs. We hypothesized that precarity should be positively linked to conspiracy beliefs (H1), negatively to trust in actors related to the conspir-acy (H2), which itself would be negatively linked to conspiracy beliefs (H3). Our analyses should yield a positive indirect effect so that increases in precarity levels would lead to increases in conspiracy beliefs through decreased trust in actors related to the conspiracy (H4).

A crucial question we also sought to address when testing our model was to find out whether the subjective experience of precarity could be related to conspiracy beliefs, independently of objective life circumstances (e.g. income, education, etc.). This could explain why, for instance, votes for populist move-ments or candidates (e.g. Trump in the United States) tend to be more prevalent among the lower-middle class whose earnings and available income may be higher than that of the lower-classes, but who struggle to deal with the financial requirements of their relatively 'more wealthy' lifestyle (e.g. paying mortgages vs. social housing rent).

OVERVIEW OF THE STUDIES

To test our theoretical model of conspiracy beliefs based on precarity, we conducted three cross-sectional studies using various representative samples across six continents. The first study made use of the latest (2017–2021) World Values Survey wave (WVS wave 7; Haerpfer et al., 2020). Although conspiracy beliefs are not measured in the WVS, we constructed an index of conspiracy beliefs by analysing respondents'

agreement on items regarding perceptions of electoral fraud but exclusively restricting our analysis on countries with objectively high indices of electoral, liberal and direct democratic freedoms where such fraud is less likely to occur.

Studies 2a (France) and 2b (Italy) employed the analyses of poll data, this time including validated scales for measuring both conspiracy beliefs and mentality regarding the COVID-19 pandemic and other alleged plots (e.g. 9/11). Study 2a was a secondary analysis of a dataset collected by third parties related to the investigators (but not designed by investigators themselves) and Study 2b was an analysis of a survey directly conducted by some of the investigators in the context of another project related to COVID-19's psychological consequences in Italy. This strategy allowed us to establish robust correlational findings across a range of ecologically valid stimuli (Wells & Windschitl, 1999).

The studies were all conducted in accordance with the APA Code of Conduct (APA, 2017). Supplementary materials, analyses and all data underlying our findings can be openly accessed and downloaded through the Open Science Framework platform at https://osf.io/93f5d/?view_only=1b927686808346e385d5e2dedbede4be.

STUDY 1

METHOD

In this first study, we decided to analyse data collected in the context of the 2017–2021 WVS, which included a substantial number of measures relevant to our theoretical model. Data collection procedure as well as content of the questionnaire in each country is extensively detailed on the WVS website.[1]

Participants

Given the specific methodological choices we made to calculate our conspiracy beliefs score (see section Measures below), our analysis focused on a fraction only of the WVS data. It included 21,649 participants from 16 countries (46.9% male; $M_{age} = 47.3$, $SD_{age} = 17.5$), guaranteeing sufficient power to detect small direct and indirect effects as well as to provide for stable correlation estimates (Schönbrodt & Perugini, 2013).

Measures

Our study used indicators and measures computed as detailed below. Country-specific descriptive statistics are available on the OSF project page (under Study 1 WVS).

Precarity

Five items were averaged to create a composite measure of precarity. These items asked how often participants or their family had "*gone without enough food to eat,*" "*felt unsafe from crime in [their] home,*" "*gone without medicine or medical treatment that [they] needed,*" "*gone without a cash income*" and "*gone without a safe shelter over [their] head*" over the last 12 months. This indicator hence tapped into feelings of insecurity (one item) and subjective estimates of uncertainty in several areas of life such as health, food, finance and constituted an adequate proxy for measuring overall experience of precarity (questions 51 to 55; 4-point Likert, from 1 '*never*' to 4 '*often*'; $M = 1.44$, $SD = .57$, $a = .77$).

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[1]https://www.worldvaluessurvey.org/WVSDocumentationWV7.jsp.

Conspiracy beliefs

As mentioned earlier, the WVS does not contain measures of conspiracy beliefs per se. To assess participants' level of conspiracy beliefs, we thus took advantage of the presence of items assessing participants' perceptions of electoral fairness (questions 224 to 233). Electoral fairness is the cornerstone of democratic practices. We thus decided to focus only on those countries displaying a level of democratic and political freedom high enough to make sure that any perceptions of electoral unfairness would be at odds with the country's political reality. To do so, we selected countries ranked as 'Free' by the Freedom House Project Index (https://freedomhouse.org/countries/freedom-world/scores, this index was also coded as a country characteristic in the WVS itself). This left us with the following 16 countries: Andorra, Argentina, Australia, Brazil, Chile, Cyprus, Germany, Greece, Japan, New Zealand, Peru, South Korea, Romania, Taiwan, Tunisia and the United States.

Still, some of the electoral fairness items were ambiguous. For instance, question 233 asked if *"women have equal opportunities to run the office."* Given the existing gender differences in political involvement, participation and representation in favour of men, one could completely agree with the item and be in line with results from social science research (at least among OECD countries e.g. Kittilson, 2016). Question 229 asks if *"election officials are fair,"* which is a broad subjective statement. Likewise, it may be objected that question 230 *"rich people buy elections"* reflects evidence showing how political donations from high-income individuals and corporations affect electoral outcomes and policy making (Bekkouche et al., 2020; Cagé, 2020; Muttakin et al., 2021).

For these reasons, we only retained items related to unambiguous political practices that are very unlikely to occur in democratic contexts. These items were questions 225–227 *"opposition candidates are prevented from running,""TV news favors the governing party,""voters are bribed"* as well as question 231 *"voters are threatened with violence at the polls"*(4-point Likert, from 1 'never' to 4 'often', $M = 2.15$, $SD = .66$, $a = .68$). Item reliability ($a = .68$) was the highest among all possible combinations within this set of four items.

Electoral trust

To avoid noise and remain domain-specific in our assessment, we decided to measure electoral distrust using the single-item question 76 *"could you tell me how much confidence you have in elections?"* (4-point Likert, from 1'a great deal' to 4'none at all';$M = 2.66$, $SD = .98$, reverse-coded to obtain a measure of trust).

Covariates

In addition to our constructs of interest, we computed indices to be used as covariates to rule out alternative explanations for our model and potential confounds. For these robustness checks, we first sought to capture religious affiliation (question 173; atheist vs. all other denominations, 11.6%), political ideology (question 240; 10-point Likert, from 1 'left' to 10 'right'; $M = 5.30$, $SD = 2.27$) and political extremism (derived from ideology, distance from the scale center, 5-points, $M = 1.96$, $SD = 1.17$), which are all important predictors of conspiracy beliefs (Douglas et al., 2019; Nera et al., 2021).

Second, we aimed to demonstrate the specificity of precarity as a predictor of trust and conspiracy beliefs. To do so, our robustness checks would need to rule out confounds such as physical health (subjective, question 47, *"how would you describe your state of health these days?"*; 5-point Likert, from 1 'very poor' to 5 'very good,'$M = 3.85$, $SD = .85$), life satisfaction (question 49, 10-point Likert, from 1 'completely dissatisfied' to 10 'completely satisfied,'$M = 7.14$, $SD = 2.03$), economic satisfaction (question 50, 10-point Likert, from 1 'completely dissatisfied' to 10 'completely satisfied,'$M = 5.00$, $SD = 2.32$), education (also a predictor of conspiracy beliefs; see van Prooijen, 2017; question 275, 8-points from 1 'no education' to 8 'doctorate,'$M = 3.93$, $SD = 1.82$), subjective socio-economic status (question 287, *"would you describe yourself as belonging to the…"*,

5-points from 1 '*upper class*' to 5 '*lower class*,' $M = 2.78$, $SD = .93$) and income (question 288, 10-points income scale from 1'*lowest income group*' to 10'*highest income group*,'$M = 4.89$, $SD = 2.01$). Age and sex of participants were also included in the robustness checks.

RESULTS

Correlations

Due to the structure of WVS data (individuals nested in countries; see Schielzeth et al., 2013), it is not possible to compute Pearson correlation coefficients. These would yield biased estimates due to clustering. Rather, it is recommended to use repeated measure correlations, which can be computed one by one (pairwise) manually using the openly accessible R package '*rmcorr*' (see Bakdash & Marusich, 2017 for more details). Given a large number of potential correlations between the constructs involved ($n = 84$), we decided to report such correlations exclusively between our constructs of interest for the sake of parsimony.

In line with H1, precarity was positively linked to conspiracy beliefs, $r(16945) = .13$, $p < .001$, 95%CI [0.11, 0.14]. Supporting H2 and H3, respectively, precarity was negatively related to electoral trust, $r(20887) = -.07$, $p < .001$, 95%CI [−0.08, −0.06], and electoral trust was negatively associated with conspiracy beliefs, $r(16774) = -.19$, $p < .001$, 95%CI [−0.21, −0.18].

Robustness checks

Because *rmcorr* cannot compute partial correlations, we then turned to multilevel modelling using the GAMLj module for JAMOVI (based on R language and commands from the '*lme4*' package; Bates et al., 2007; The Jamovi Project, 2021) to assess whether the links between our constructs of interests were robust to adjustment on covariates. Full models can be seen in the relevant section on the OSF project page (Study 1 WVS).

These analyses confirmed that our results were robust. Again, in line with H1, precarity still positively predicted conspiracy beliefs, $t(14149) = 12.36$, $\beta = .07$, $p < .001$, 95%CI [0.06, 0.08]. Supporting H2 and H3 once more, precarity negatively predicted electoral trust, $t(16698) = 2.52$, $\beta = -.02$, $p = .012$, 95%CI [−0.04, −0.01], and electoral trust negatively predicted conspiracy beliefs, $t(14147) = 22.45$, $\beta = -.12$, $p < .001$, 95%CI [−0.13, −0.11].

Multilevel mediation analysis

Due to the clustering of individuals within countries, it was not possible to implement traditional mediation tests relying on OLS regressions (e.g. Hayes, 2017). We, therefore, used the R '*mediation*' (Tingley et al., 2014) package to conduct analyses based on non-parametric estimates (see Imai et al., 2010 for more details). These analyses ($N_{bootstrap} = 1000$) corroborated a model (see Figure 1) including the presence of both direct, $\beta = .13$, $p < .001$, 95%CI [0.11, 0.14] and indirect effects of precarity on conspiracy beliefs through electoral trust, $\beta = .02$, $p < .001$, 95%CI [0.01, 0.02]. This indirect effect amounted to approximately 10% of the model's total effect, $\beta = .14$, $p < .001$, 95%CI [0.12, 0.16].

DISCUSSION

This first series of results provided support for our hypothesized model. We successfully established the presence of a robust link between precarity and conspiracy beliefs, across several model specifications,
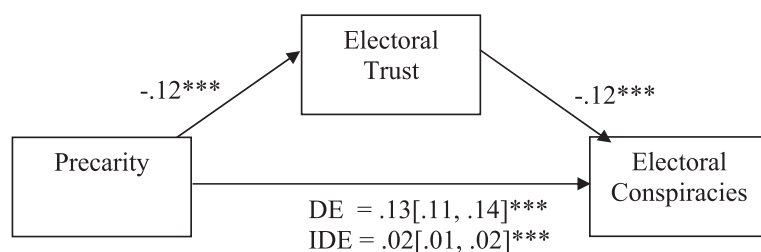
FIGURE 1 Partial mediation model of Precarity's effect on electoral conspiracy beliefs through electoral trust. *Note.* ***$p < .001$, numbers represent *beta* coefficients for each path. Numbers between brackets indicate lower and upper bounds for coefficients' 95%CI. DE = direct effect, IDE = indirect effect.

including a host of relevant covariates. The link between precarity and conspiracy beliefs (unadjusted, $\beta = .13$, $p < .001$) was still substantial after adjustment ($\beta = .07$, $p < .001$). This link is furthermore generalizable to a substantial sample of democratic countries spanning several continents. On the other hand, the link between precarity and trust was much weaker when adjusted, which may explain why the consequent indirect effects of precarity through trust were also relatively small ($\beta = -.02$). This may be due to the single-item trust measure (i.e. noisy), but could also reflect low adequacy between the mediation model and the data. Moreover, we could not provide strong construct validity for our indicators (but see Houston, 2004), which were not properly validated scales. For all these reasons, we decided to replicate our results using two further representative survey datasets collected in France and Italy.

STUDY 2

METHOD

This second set of studies aimed to replicate the results from Study 1 by using more valid and precise measures of both trust and conspiracy beliefs. To do so, we used cross-sectional survey data collected in France (2a, pre-pandemic) and Italy (2b, during the pandemic) using representative samples. The countries were chosen partly for convenience reasons and because they were not included in the WVS study, therefore, allowing for a proper confirmatory test with non-overlapping samples and cultural contexts. Study 2a waspart of a multi-study data collection effort. Study 2b is an original analysis of a subset of indicators from data collected in Italy during the COVID-19 pandemic.

Participants

Study 2a (France)

A survey on a representative sample of the French population was conducted between December 21st and December 23rd, 2018 by the *Institut Français d'Opinion Publique* (IFOP) on behalf of the *Fondation Jean-Jaurès*[2] and *Conspiracy Watch*.[3]

The representativeness of the overall sample was ensured by the quota method, for three criteria: gender, age and profession, after stratification by region and socio-professional categories ($n = 1506$). A group of 254 French people aged between 18 and 35 were added to this sample and were surveyed in parallel between December 21st and December 23rd. The final sample thus resulted in a total of 1760

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[2]https://www.jean-jaures.org/.
[3]https://www.conspiracywatch.info/.

participants (44.80% male; M_{age} = 46.10, SD_{age} = 18.40). According to the IFOP, this was done to obtain a larger subsample of young people who are believed to be especially sensitive to conspiracy theories in France, as it was observed in a previous representative survey (Wagner-Egger et al., 2018). We performed the statistical analyses on the full sample for reasons of commodity, but we verified whether the results were identical when weighing participants for representativeness.

Study 2b (Italy)

A nationally representative survey study was conducted in Italy between December 27, 2020 and January 7, 2021. The current study was part of a larger questionnaire that aimed at studying public opinion about the pandemic-related issues (e.g. respondents' physical status, psychological status, subjective probability of contracting COVID-19, opinions about COVID-19's dangerousness).

Participants were recruited by the participant-sourcing platform Cloud Research using a quota sampled cohort of Italian adults. Quotas were based on the Italian National Institute of Statistics population estimate data for gender and income. The final sample comprised 2204 participants (52.5% male; M_{age} = 28.33, SD_{age} = 11.34).

Again, both these sample sizes guaranteed sufficient power to detect small direct and indirect effects as well as to provide for stable correlation estimates (Schönbrodt & Perugini, 2013).

Measures

Precarity

To overcome the limitation posed by a somewhat broad measure of precarity in Study 1, in Studies 2a and 2b, our precarity measures were made of more straightforward, strict indicators focusing on economic matters. As the experience of precarity in the literature is tied to economic and labor issues (Millar, 2017), we opted for a more severe test of our theoretical proposition in Studies 2a and 2b.

Study 2a (France)
Highlighting a subjective sense of financial insecurity and struggle, precarity was measured in France using an item asking if participants "*manage to make ends meet at the end of the month*" (5-point Likert, from 1 '*easily*' to 5 '*very hardly*'; M = 2.92, SD = 1.10).

Study 2b (Italy)
Three items adapted and modified from prior research (see Adam-Troian et al., 2021) were used to assess the extent to which participants experienced precarity related to the COVID-19 outbreak: I am "*worried about losing my job,*""*worried that I will not have enough money for my family needs,*" and "*concerned that my financial situation may be adversely affected*" (5-point Likert, from 1 '*completely disagree*' to 5 '*completely agree*'; M = 3.05, SD = 1.06, a = .86).

Conspiracy beliefs

Conspiracy beliefs in both studies pertained to different contexts. While the survey in France was conducted pre-COVID-19 and included 'classic'[4] conspiracy beliefs (e.g. beliefs about 9/11) as well as a

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[4]Classic conspiracy beliefs comprise beliefs that transcend cultural contexts within modern history (e.g. antisemitic conspiracies, American militarism requiring "false flag" operations, world domination by secret societies, depraved elites engaging in immoral behaviours).

general measure of conspiracy mentality, the Italian survey contained mostly conspiracy beliefs related to the pandemic.

Study 2a (France)

The survey comprised two sets of conspiracy-related outcomes. First, we analysed respondents' endorsement of ten particular conspiracy theories, four of which directly relate to the US context: "*the CIA controls global drug trafficking*,""*9/11 was an 'inside job*,'""*'Big Pharma'" and governments promote dangerous vaccines,*" "*the Illuminati manipulate the masses*,""*there are hidden signs for the New World Order on banknotes and video clips*,""*Zionists conspire for world domination*,""*there is an organized "Great Replacement" of EU natives by immigrants*," "*Lady Diana's car crash was not accidental*,""*the Apollo landing on the moon was fake*" and "*planes spread so-called "Chemtrails" for secret reasons*" (4-point Likert, from 1'*not agree at all*' to 4 '*completely agree*,' $M = 1.96$, $SD = .81$, $a = .94$).

Second, we also made use of the survey's standardized generic conspiracy beliefs scale (Conspiracy Mentality Questionnaire, 5 items; see Bruder et al., 2013 for the full item list, which includes generic statements such as "*There are secret organizations that greatly influence political decisions*"). Contrary to the original paper, the scale was downsized by IFOP to 4 points (instead of 10) for practical reasons (from 1'*absolutely not true*' to 4 '*completely true*'; $M = 3.03$, $SD = .69$, $a = .86$).

Study 2b (Italy)

Five items adapted from Oleksy et al. (2021) were used to assess the extent to which participants endorsed diverse conspiracy theories related to the COVID-19 outbreak: "*The media pay disproportionate attention to negative news to sow panic in our society*,""*The pharmaceutical industry is taking advantage of the COVID-19 pandemic to make money*,""*The government is deceiving us and hiding information about the Coronavirus*,""*The problems facing the pandemic in Italy are the product of the corruption of government officials who squandered the money*" and "*The pharmaceutical industry is making a fortune from the pandemic by selling more medicines than ever*" (5-point Likert, from 1 '*completely disagree*' to 5 '*completely agree*,' $M = 3.24$, $SD = .87$, $a = .82$).

Trust

Study 2a (France)

In France, a broad inclusive trust measure was created by reverse-coding and averaging questions assessing distrust towards five institutions (the police, justice system, military, education and the media; 5-point Likert, from 1 '*very confident*' to 5'*not confident at all*,'$M = 2.61$, $SD = .54$, $a = .75$; reverse-coded).

Study 2b (Italy)

In Italy, six items were adapted and modified from Teymoori et al. (2016) to measure the extent to which respondents trusted political authorities: "*The government represents the majority of the population*,""*The government works for the welfare of the people*,""*Authorities protect vulnerable and weak people*,""*Government laws and policies are effective*,""*People approve of the government's agenda*," and "*People can trust the authorities*" (5-point Likert, from 1 '*completely disagree*' to 5 '*completely agree*,' $M = 2.69$, $SD = .87$, $a = .92$).

Covariates

As in Study 1, we included a number of covariates (in addition to age and sex) to assess the robustness of our results.

Study 2a (France)

Again, we measured religious affiliation (no religion vs. all other denominations, 40.3%), political ideology (5-point, from 1 '*far-left*' to 5 '*far-right*,'$M = 3.13$, $SD = 1.36$; coded from the candidate they voted for in

2017) and political extremism (derived from ideology, distance from the scale center, 3-points, $M = 1.11$, $SD = .79$). Education was measured using a 11-point ranking (highest diploma earned, from 1 = '*none*' to 11 = '*Doctorate*,' $M = 8.59$, $SD = 2.24$) and monthly income with a 6-point scale (from 1 = '*less than 1000€*' to 6 = '*4000€and more*,'$M = 8.59$, $SD = 2.24$). Likewise, we made use of a measure of life satisfaction ("*would you say that you succeeded in life?*"; 5-point Likert, from 1 = '*not at all*' to 5 = '*completely*,' $M = 2.75$, $SD = .67$).

Study 2b (Italy)

Due to survey length constraints, fewer covariates were available in the Italian study, although still enough to conduct proper robustness checks. Political ideology was included (9-point Likert, from 1 '*far-left*' to 9 '*far-right*,'$M = 5.01$, $SD = 1.95$) and political extremism was, again, derived from it (4-points, $M = 1.45$, $SD = 1.31$). Education was also measured through highest diploma earned (7 ranks from 1 = '*none*' to 7 = '*Doctorate*,' $M = 4.38$, $SD = 1.31$), and subjective income level on a 5-point scale (relative to the average Italian, from 1 = '*much lower than average*' to 5 = '*much more than average*,'$M = 3.29$, $SD = .82$). As a proxy for life and economic satisfaction, we also included a single-item measure of past-relative deprivation ("*would you say your life has improved or worsened compared to before?*"5-point Likert, from 1 = '*improved a lot*' to 5 = '*worsened a lot*,'$M = 2.45$, $SD = .82$).

RESULTS

Correlations

Bivariate Pearson correlation coefficients between our variables of interest were computed (see Table 1). In France, and in line with H1, precarity was positively linked to both conspiracy beliefs, $r(770) = .30$, $p < .001$, 95%CI [0.23, 0.36] and conspiracy mentality, $r(1372) = .25$, $p < .001$, 95%CI [0.20, 0.30]. Supporting H2 and H3, respectively, precarity was negatively related to institutional trust, $r(1616) = -.25$, $p < .001$, 95%CI [−0.30, −0.20], which in turn was negatively associated with both conspiracy beliefs, $r(761) = -.33$, $p < .001$, 95%CI [−0.39, −0.26] and conspiracy mentality, $r(1326) = -.36$, $p < .001$, 95%CI [−0.40, −0.31].

    Likewise in Italy, in line with H1, precarity was positively linked with COVID-19 conspiracy beliefs, $r(1848) = .22$, $p < .001$, 95%CI [0.17, 0.26]. Supporting H2 and H3, respectively, precarity was negatively related to political trust, $r(1849) = -.15$, $p < .001$, 95%CI [−0.19, −0.10], which was in turn negatively associated with COVID-19 conspiracy beliefs, $r(1848) = -.46$, $p < .001$, 95%CI [−0.50, −0.42].

Robustness checks

Partial correlation coefficients adjusting for the covariates available in each country were then computed (see Table 1). In France, precarity was still positively linked with conspiracy mentality scores, $r(684) = .15$, $p < .001$, 95%CI [0.07, 0.22] but the relationship with conspiracy beliefs disappeared, $r(410) = .08$, $p = .11$, 95%CI [−0.02, 0.18], providing mixed evidence for H1. Still, supporting H2 and H3, respectively, precarity was negatively related to trust in institutions, $r(776) = -.11$, $p = .004$, 95%CI [−0.18, −0.04], in turn negatively associated with both conspiracy beliefs, $r(407) = -.24$, $p < .001$, 95%CI [−0.33, −0.15] and conspiracy mentality, $r(671) = -.24$, $p < .001$, 95%CI [−0.31, −0.17].

    In Italy, all links held to adjustment. As per H1, precarity was still positively linked with COVID-19 conspiracy beliefs, $r(1819) = .12$, $p < .001$, 95%CI [0.08, 0.17]. Supporting H2 and H3, respectively, precarity was also negatively related to political trust, $r(1820) = -.07$, $p = .005$, 95%CI [−0.11, −0.02], and political trust was negatively associated with COVID-19 conspiracy beliefs, $r(1819) = -.40$, $p < .001$, 95%CI [−0.43, −0.36].

TABLE 1 Summary of bivariate and partial correlation analyses between precarity, trust and conspiracy beliefs measures from studies 2a (France, $N = 1760$) and 2b (Italy, $N = 1860$).

	1	2	3	4
Study 2a (France)				
Bivariate				
Precarity	-			
Trust	−.25***	-		
CBs	−.30***	−.33***	-	
CMQ	−.25***	−.36***	.60***	-
Partial				
Precarity	-			
Trust	−.11**	-		
CBs	.08	−.24***	-	
CMQ	.15***	−.24***	.47***	-
Study 2b (Italy)				
Bivariate				
Precarity	-			
Trust	−.15***	-		
COVID-19 CBs	.22***	−.46***	-	-
Partial				
Precarity	-			
Trust	−.07**	-		
COVID-19 CBs	.12***	−.40***	-	-

Note: Control variables for partial correlations arethe covariates available in each country survey, see methods, measures section.

Abbreviation: CB, Conspiracy Beliefs.

**p* < .01, ***p* < .001.

Mediation analysis

To test H4 this time, we could implement mediation tests relying on OLS regressions (see Hayes, 2017 for more details). We used the GLM Mediation package from JAMOVI (The Jamovi Project, 2021; $N_{bootstrap} = 1000$) to compute two mediation models (see Figure 2) with COVID-19 beliefs as the outcome in Italy and focusing on conspiracy mentality in France (since conspiracy beliefs were not robust to adjustment). Full model tables can be accessed in the corresponding OSF web page folder. Again, the analyses corroborated a model including the presence of a direct, $\beta = .12$, $p < .001$, 95%CI [0.09, 0.16] and an indirect effect of precarity on conspiracy beliefs through institutional trust, $\beta = .05$, $p < .001$, 95%CI [0.04, 0.07] in France. This indirect effect amounted to approximately 28% of the model's total effect, $\beta = .18$, $p < .001$, 95%CI [0.21, 0.26].

In Italy, analyses also detected the presence of both direct, $\beta = .14$, $p < .001$, 95%CI [0.10, 0.17] and indirect effects of precarity on conspiracy beliefs through political trust, $\beta = .05$, $p < .001$, 95%CI [0.04, 0.08], the latter amounting to approximately 26% of the model's total effect, $\beta = .19$, $p < .001$, 95%CI [0.15, 0.23].

DISCUSSION

Studies 2a and 2b further corroborated the plausibility of a socio-functional model of conspiracy beliefs based on precarity. Across a range of different operationalizations of all constructs involved, we successfully replicated the results from Study 1. Moreover, the size of coefficients and proportions of indi-
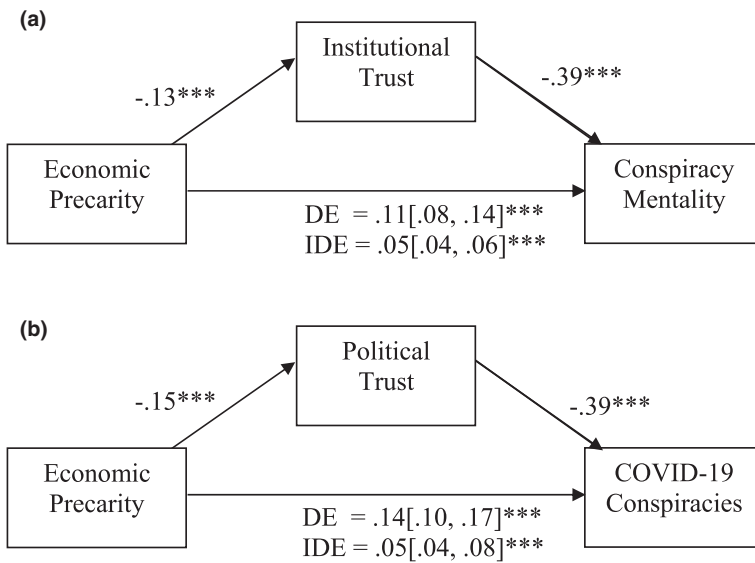
FIGURE 2 (a) Partial mediation model of Precarity's effect on conspiracy beliefs through Trust in France. (b) Partial mediation model of Precarity's effect on conspiracy beliefs through Trust in Italy. *Note.* ***$p < .001$, numbers represent *beta* coefficients for each path. Numbers between brackets indicate lower and upper bounds for coefficients' 95%CI. DE = direct effect, IDE = indirect effect.

rect relative to total effects in Italy was strikingly similar to those obtained in France. However, we also observed that some of the conspiracy beliefs measures (e.g. 'classic' conspiracy beliefs in France), were not robustly associated with precarity.

GENERAL DISCUSSION

In this set of studies, we sought to examine the structural determinants of conspiracy beliefs by laying the foundations for a socio-functional approach to conspiracy beliefs. Drawing on existing theories of precarity, we predicted that the experience of a permanent sense of ontological insecurity—especially in the financial domain—would explain individuals' increased tendency to endorse conspiracy beliefs. Our hypothesis was that perceived precarity, through its effect on trust towards institutions and 'elites', could be a factor to understand the observable class divide surrounding conspiracy beliefs. Across three population-based survey studies conducted in both Global North and Global South countries, we found consistent evidence for a predictive power of precarity upon conspiracy beliefs directly and indirectly through different types of trust.

An important feature of our results is that—for the first time—we demonstrated that precarity is robustly associated with conspiracy beliefs, regardless of how precarity is operationalized (Study 1: physical and economic safety; Study 2a: subjective feelings of "*making ends meet*"; Study 2b: worry of financial insecurity due to the pandemic) or how conspiracy beliefs are measured (beliefs related to electoral, conspiracy mentality, COVID-19 conspiracy beliefs). In fact, the indicators we used to operationalize precarity, although imperfect, could be the basis for future psychometric precarity scales to be tested and validated properly (see Boateng et al., 2018), maybe in conjunction with indicators tapping into other subjective experiences of precarity (e.g. Time–Space Distanciation, see Schmitt et al., 2022). Moreover, the links we observed were systematically robust to adjustment on known predictors of conspiracy beliefs and on actual financial variables (e.g. income, SES). This reveals how precarity can still predict conspiracy beliefs because of its psychosocial component, in line with conceptions of precarity as an experience that transcends traditional class boundaries (see Standing, 2011).

Hence, our socio-functional model provides a novel complementary perspective to current explanations of the link between conspiracy beliefs and distrust. Current research highlights how stable individual differences in psychopathological traits (e.g. paranoid ideation; see van der Linden et al., 2021) and local historical factors (US social history; Hofstader, 1964) can underly distrust and conspiracy beliefs. Here, we propose and demonstrate that other experiences such as precarity can also shape individuals' perception of institutions and higher-SES groups as hostile outgroups, generating a form of distrust that is a fertile psychological ground for conspiracism. This is important to understand the amorphous nature of conspiracy beliefs. Here, we show that power—through the relative presence or absence of experiencing precarity—plays a role in shaping those beliefs and can explain how these may be instrumentalized for political ends (especially by authoritarian leaders; Ren et al., 2022), generating hatred and intergroup violence.

Still, one may argue that these results cannot be generalized to all types of conspiracy beliefs (see Franks et al., 2017 for an overview of the different motivations at play behind conspiracy beliefs). Indeed, Study 2a showed that adjustment made the link between precarity and 'classic' conspiracy beliefs disappear, suggesting that precarious individuals do not believe in these more than non-precarious ones. Although this could be due to statistical issues (e.g. power, N dropped to 407 on this outcome in France), we believe this result to corroborate our hypothesis further. When taking a closer look at the items, these 'classic' conspiracies (e.g. the fake moon landing, the chemtrails or the Illuminati; see Robertson, 2016) are the ones that could be considered the most out of touch with concrete political or ideological concerns (and may be driven by more spiritual or community-oriented motives, Franks et al., 2017).

Interestingly, there is also evidence that the apparently high prevalence of these conspiracy beliefs (e.g. QAnon, micro-chips in the COVID-19 vaccine) may be due to methodological biases, which tend to inflate self-reported endorsement (Clifford et al., 2019; Sutton & Douglas, 2020). Therefore, it is possible that precarity relates more strongly to less far-fetched beliefs pertaining to power struggles between socio-economic and political groups, while more 'fringe' conspiracy beliefs—such as micro-chips in vaccines—may be more strongly predicted by cognitive or pathological traits and the presence of measurement issues.

Our overall results may, therefore, suggest that precarity may shape one's adherence to conspiracy beliefs about 'relevant' political and social groups involved in the management of economy and society (e.g. government, decision-makers, multinational corporations) that are likely to (or have the potential to) influence the condition of precarious individuals. Findings from the current research may, therefore, also explain related phenomena such as people's engagement in or support for unconventional political movements like the Brexit in the UNITED KINGDOM or the Yellow Vests movement in France. As previous research has documented, these social movements were driven by precarious middle-class individuals more than by those at the very bottom of the socio-economic ladder (Blavier, 2021; Hobolt, 2016).

Theoretically grounded conspiracy beliefs within the broader framework of precarity allows to approach an overtly empirically driven field (Goreis & Voracek, 2019) with a solid background. Doing so shows that, although conspiracy narratives are irrational, the endorsement of these narratives obeys a rational social and intergroup logic (albeit not a normative ratinality), in line with a socio-functional perspective. The current investigation can be considered the first social-psychological attempt to directly examine the association between precarity and conspiracy beliefs through (dis)trust towards political and social institutions. Accordingly, we were able to pinpoint that between 10 and 30% of precarity's effect on conspiracy beliefs could operate through trust, meaning that between 70 to 90% remain open to parallel or alternative pathways to consider.

For instance, the constant anxiety and uncertainty generated by precarity could negatively impact people's cognitive ability by increasing their cognitive load, leading to increased conspiracy beliefs (Farah et al., 2017; Haushofer & Fehr, 2014). Lower educational achievement due to precarity (Croizet et al., 2019) could also explain a substantial portion of the link between precarity and conspiracy beliefs (see also van Prooijen, 2017). Likewise, it is possible that precarity leads to higher perceptions of anomie, the collapse of societal fabric, which are themselves linked with higher levels of conspiracy beliefs (Jolley et al., 2019; Salvador Casara et al., 2022). Similarly, the mediating role of precarity-induced clinical and subclinical

psychopathological factors (Wickham et al., 2014), which is known to foster conspiracy ideation (Bowes et al., 2021; Georgiou et al., 2019), should be tested.

This mediation process, however, remains to be tested further. For instance, indirect effect sizes from all three studies were small. While this type of effect may matter in the long run (e.g. when exposure is chronic; see Funder & Ozer, 2019), this small size indicates that a substantial part of the mechanism linking precarity with conspiracy beliefs remains to be explained further. Nonetheless, given the scope and representativeness of the samples investigated, our results favour plausible key effects of precarity on socio-political attitudes (trust and conspiracy beliefs), which may have important practical implications.

The introduction of precarity in social psychology allows for designing novel targeted intervention avenues aimed at countering conspiracy beliefs by targeting their chronic determinants, beyond individual aspects. For now, interventions aimed at dismantling conspiracy beliefs disproportionately focus on eliminating fake-news sharing (e.g. changing individual behaviour on social media), prompting more analytical mindsets and inoculating individuals with counterarguments before exposure to conspiracy beliefs-related content (Bago et al., 2020; Bonetto et al., 2018). In other words, interventions targeting conspiracy beliefs aim to correct flawed logic and reasoning among so-called 'irrational' individuals, whereas their immediate environment—and related chronic exposure factors—remain untouched. This may explain why effect sizes remain small and inconsistent from one study to another (e.g. Roozenbeek et al., 2021), a consequence maybe of a strong cognitive take on conspiracy beliefs (see van Mulukom et al., 2020 for a similar argument).

The consequences of failing to implement a sociological social psychology research program (Boutilier et al., 1980) to investigate conspiracy beliefs may go beyond theoretical losses. A form of cognitive 'business as usual' prevents us from taking a critical perspective on the underlying causes of conspiracist thinking in our societies (Dafermos, 2015), which may have deleterious applied consequences. More specifically, the distraction caused by a focus on individual factors in behavioural science tends to delay and impede the implementation of effective solutions at the systemic level (Chater & Loewenstein, 2022). As an illustration let us take research, which shows that conspiracy beliefs about the origins of AIDS/HIV is higher among Latinos, women and African American groups in the United States (Ross et al., 2006). While a mainstream cognitive approach would focus on education and analytical reasoning, an analysis based on our model would lead practitioners to consider the role of structural factors such as discrimination in fostering precarity among disadvantaged group members. One approach would recommend that practitioners craft interventions to 'educate' individuals, while the other would encourage them to test public policies addressing the structural causes of conspiracy thinking (discrimination, inclusion, political rights, economic equality…).

Besides the usefulness of our approach considering precarity in economic terms, much more should be done to investigate other facets of the phenomenon. As the example above indicates, class is merely one aspect of the experience of precarity. In fact, it has been argued that identity, ethnicity and gender all shape experiences of precarity (see, Misra, 2021). This is because precarity is linked with a sense of ontological insecurity, which pertains to concerns regarding oneself in relationship to the social world, the stability of one's status, of one's sense of being valued, respected, safe, included—in addition to material concerns (but see Kinnvall & Mitzen, 2020).

Although we did not directly integrate minority status in our analyses, we believe our models are still informative in these regards. Minority status is associated with conspiracy beliefs mainly due to experiences of discrimination (Graeupner & Coman, 2017; van Prooijen et al., 2018): it is not causal in and of itself but because it is a proxy for structural phenomena that lead to inequality of treatment. To the extent that we accounted for an exhaustive number of variables likely to be affected by structural discrimination (e.g. subjective health, satisfaction with life, income, social status, education…), the robust link between precarity and conspiracy beliefs provides evidence for the role of ontological insecurity as a driver of such beliefs across groups. As a side note, in such a statistical context, assuming an effect of minority status (devoid of its structural component) would implicitly offer support to questionable assumptions regarding the existence of biological differences between groups (reproducing a colonial research agenda, see Reddy et al., 2022).

To explore thoroughly the multiple aspects of precarity, however, would require the construction of proper indicators, which may not be captured only through quantitative means. A more socially relevant social psychology of conspiracy beliefs (Giner-Sorolla, 2019) entails investigating precarity as a broader construct, which ultimately calls for a mixed-methods approach in future research (e.g.Levy Paluck, 2010).

CONCLUSION

Our study of economic precarity suggests that implementing solutions at the socio-economic level could prove efficient in fighting conspiracy beliefs. Within the boundaries of our studies' limitations, we, therefore, propose that using tools derived from applied economics (e.g. systematic targeted randomized field studies with income allocations, see Duflo & Banerjee, 2011) may, for instance, help to radically fight the current spread of vaccine scepticism and xenophobic populism. Beyond conspiracy beliefs and their consequences, the current lack of research on precarity in social psychology may impede the progress of crucial work in the areas of inequalities, social justice and intergroup relations. By highlighting the contextual aspects and volatile nature of experiences of insecurity in several life domains (Ettlinger, 2007; Philo et al., 2019; Söderström, 2019), which may affect societal and intergroup attitudes, precarity as a construct holds the potential to help craft ever more powerful interventions. A true social psychology of precarity holds the promise of achieving a paradigmatic change by displacing the research focus from individual-level determinants to structural-level factors, too often overlooked by social psychologists (see Oishi et al., 2009). As Bourdieu (1998) wrote: "to change one's life, one has to change political life."

AUTHOR CONTRIBUTIONS

Maria Chayinska: Conceptualization; data curation; investigation; methodology; project administration; validation; writing – original draft; writing – review and editing. **Maria Paola Paladino:** Conceptualization; investigation; methodology; project administration; writing – review and editing. **Özden Melis Uluğ:** Conceptualization; investigation; methodology; writing – review and editing. **Jeroen Vaes:** Conceptualization; investigation; methodology; writing – review and editing. **Pascal Wagner-Egger:** Methodology; project administration; writing – review and editing.

CONFLICT OF INTEREST

DATA AVAILABILITY STATEMENT

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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