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Article

When Believing in Divine Immanence Explains Vaccine Hesitancy: A Matter of Conspiracy Beliefs?

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Abstract

This article analyzes the relationship between religiosity and vaccine hesitancy by highlighting the role of a specific dimension of religiosity that makes some people more prone to explaining health conditions as a divine agency—the belief in the immanent presence of the divine in everyday life. Accordingly, these people may undervalue the role of vaccination as a solution to cope with a pandemic and may be more skeptical of vaccines. We suggest a mechanism explaining the relationship between religiosity and vaccine hesitancy by focusing on the mediating role of beliefs in conspiracy theories, given that belief in divine immanence and conspiracy theories share the common trait of attributing agency to hidden forces. Beliefs in conspiracy theories, in turn, have been shown to be among the strongest predictors of vaccine hesitancy. By using a moderated mediation analysis on Italian survey data collected during the Covid-19 pandemic, we show that such a mechanism helps explain the relationship between believing in divine immanence and vaccine hesitancy among people not adhering to institutional religiosity. In contrast, this mechanism does not apply when the immanent conception of the divine is framed within a system of beliefs belonging to institutional religion.

Keywords

conspiracy beliefs; Covid-19; religiosity; vaccine hesitancy

Issue

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1. Introduction

During the Covid-19 pandemic, the public debate largely focused on the vaccine against SARS-CoV-2. Both the media and academics largely turned their attention to factors associated with vaccine hesitancy, defined as “delay in acceptance or refusal of vaccination despite the availability of vaccination services” (MacDonald & SAGE Working Group on Vaccine Hesitancy, 2015, p. 4163). Previous research has identified convenience, confidence, and complacency as the three main factors associated with vaccine hesitancy (MacDonald & SAGE Working Group on Vaccine Hesitancy, 2015). Moreover, several recent studies have shown that, at the individual level, Covid-19 vaccine hesitancy is socially, psychologically, and politically patterned (Gerretsen et al., 2021;

Lazarus et al., 2020), analogously to hesitancy toward other vaccines (Bish et al., 2011; Makarovs & Achterberg, 2017) and generic vaccine skepticism (Engin & Vezzoni, 2020; Hornsey et al., 2018). While some variables have shown a consistent association with vaccine hesitancy (e.g., level of education, income, trust in politics and science, political affiliation), the association with religiosity needs to be further investigated.

There is some evidence that attending religious services is positively associated with vaccine hesitancy in the US (Barnack et al., 2010; Constantine & Jerman, 2007). Recent studies also report a negative relationship between religiosity and Covid-19 vaccination intention (Bok et al., 2021; Olagoke et al., 2021). Nonetheless, in some countries, no relationship between individual religiosity and vaccine hesitancy has emerged (e.g., for the

Italian context see Engin & Vezzoni, 2020). Moreover, a study exploring reasons for Covid-19 vaccine hesitancy in seven European countries found religious motivation the least frequently mentioned reason (in only 1% of those unsure about getting vaccinated and 2% of those not wanting to get vaccinated; see Neumann-Böhme et al., 2020).

A possible explanation for the inconsistent findings on the relationship between religiosity and vaccine hesitancy could stem from the fact that the relationship varies depending on the specific aspects of religiosity considered. It is therefore necessary to acknowledge the multidimensional nature of the concept of individual religiosity (Glock, 1959) and to explicitly clarify what one means when evoking individual religiosity. The present study focuses specifically on a religious dimension we operationally define as a belief in the immanent presence of the divine in everyday life, namely, attributing divine agency to mundane events. According to this definition, the locus of control is beyond individual choice and is left to supernatural forces. We expect these beliefs to be related to vaccine hesitancy.

To substantiate this relationship, we consider a mechanism suggesting that the effect of beliefs in divine immanence is mediated by conspiratorial beliefs. In our view, the mediation effect builds up in two steps: on the one hand, assumptions about divine agency in one's life share common traits with conspiratorial ideation (e.g., Dyrendal et al., 2018; Frenken et al., 2022; Ladini, 2022; Ward & Voas, 2011); on the other hand, conspiratorial beliefs strongly predict vaccine hesitancy (e.g., Jennings et al., 2021).

The mediating mechanism of conspiratorial beliefs is not always present, as it is conditional on the framework in which a person places their immanent religious belief. When it is framed within a system of beliefs of institutional religion, the mechanism holds more loosely as the immanent presence of the divine assumes a strictly religious connotation. Consequently, we assume a weaker association between beliefs in divine immanence and beliefs in conspiracy theories. When this framework is absent, the mechanism takes hold as the immanence of the divine reflects a broader conception characterized by the attribution of agency to hidden forces, in terms of conspiratorial explanations, which can also be evoked when referring to events like a pandemic. In this second situation, the link between religious beliefs and conspiratorial ideation becomes stronger and, subsequently, affects attitudes about specific matters, including vaccine hesitancy.

To test our hypotheses, we analyzed Italian survey data from the ResPOnSE Covid-19 project collected nearly one year after the beginning of the Covid-19 vaccination campaign and employed new questions assessing beliefs in the immanent presence of the divine and in Covid-19-related conspiracy theories. The peculiarity of the context—a Catholic country strongly hit by the Covid-19 pandemic—makes Italy an interesting case

study, even considering that Covid-19 vaccination was largely promoted by the main Catholic authorities, particularly Pope Francis.

2. Theoretical Framework and Hypotheses

2.1. Religiosity and Vaccine Hesitancy

The relationship between religiosity and vaccine hesitancy is all but trivial. Some studies carried out during the Covid-19 pandemic have shown a positive relationship (Bok et al., 2021; Olagoke et al., 2021). However, religiosity has been measured in various ways, and we can assume that its effects may differ depending on the aspects considered. When analyzing the association between individual religiosity and any attitude or behavior, one should first determine which dimension of religiosity to consider based on the theoretical framework of reference (Siegers, 2019).

From a doctrinal point of view, the position of the religious institutions and authorities about vaccination does not present relevant conflictual elements (Grabenstein, 2013). For Catholics, the main objection against vaccines is the use of cell lines from aborted fetuses (Grabenstein, 2013). Cell lines have also been used to create Covid-19 vaccines—either during the development, testing, or production phase (Wadman, 2020). Nevertheless, the use of this kind of vaccine is acceptable for the Church when there are no valid alternatives. In the specific context of the Coronavirus pandemic, the Pontifical Academy for Life officially expressed its support, claiming that the Covid-19 vaccine presents “no ethical issues” (“Covid-19 vaccines,” 2021). Moreover, vaccination against Covid-19 would pursue a common good, minimizing the health risk for vulnerable people, in line with the principles of distributive justice and love (Carson & Flood, 2017). Pope Francis reinforced this position by defining Covid-19 vaccination as “a moral obligation” (“On Covid vaccinations,” 2022). Thus, the Catholic church did not object to vaccination. Nonetheless, as Grabenstein (2013, p. 2012) observes, “behaviors of like-minded individuals are not necessarily related to the theological basis of their religions.”

Besides belonging to a religious institution, it is therefore important to identify other dimensions of religiosity that may be potentially associated with vaccine hesitancy. Previous research examining doubts about vaccination has shown that “religious claims [of] exemption would be based on arguments pertaining to illness and its outcome being the will of God in which man should not interfere” (Streefland, 2001, p. 164). Such consideration implies a specific dimension of religiosity, namely believing in the immanence of God or other spiritual entities in the mundane world. In general, such beliefs entail a perceived lower level of control over one's life (Schieman et al., 2005), including one's health. In the context of Covid-19, believing in divine immanence could result in the perception that the role of

science and medicine in providing a solution to the pandemic is marginal or irrelevant. Consequently, it could reduce the motivation to get vaccinated and, in extreme cases, it could lead to the decision of refusing the vaccine, as the outcome of one's life is believed to be in the hands of God (Schieman, 2010; Schieman et al., 2005).

Following these considerations, our first hypothesis stands as follows:

H1: Believing in divine immanence is positively associated with vaccine hesitancy.

2.2. *The Role of Conspiracy Beliefs*

When considering the relationship between believing in divine immanence and vaccine hesitancy, one could argue that other attitudinal, political, and psychological factors may mediate such a relationship. In the context of the Covid-19 pandemic, Olagoke et al. (2021) have shown that the external health locus of control, namely, the belief that a person's health depends on external factors, partly mediates the relationship between religiosity and Covid-19 vaccine hesitancy.

If we extend the idea of the external locus of control to the existence of external (even hidden) forces that can impact one's life, we naturally come to the possibility that believing in conspiracy theories represents a potential mediator of this relationship, from religiosity to beliefs in conspiracy theories, and from the latter to vaccine hesitancy. The idea of a relationship between religiosity and beliefs in conspiracy theories traces back to the seminal work of Ward and Voas (2011) and has been explored in several studies, both conceptually and empirically (Asprem & Dyrendal, 2015; Dyrendal & Hestad, 2021; Dyrendal et al., 2018; Frenken et al., 2022; Jasinskaja-Lahti & Jetten, 2019; Ladini, 2022). Conspiracy theories were even referred to as "quasi-religious beliefs" (Franks et al., 2013, p. 10).

When focusing on divine immanence, this conceptual link becomes even stronger. Indeed, if conspiracy theories are defined in terms of "attempts to explain the ultimate causes of significant social and political events and circumstances with claims of secret plots by two or more powerful actors" (Douglas et al., 2019, p. 4), believing in them shares one important trait with the sense of divine immanence. This commonality consists in providing explanations for world events by attributing agency to hidden forces (Keeley, 2018). In terms of divine immanence, the agent is either God or other spiritual entities, aimed at providing order to the world. With respect to conspiracy theories, the agent is represented by a small group of individuals plotting for their own benefit against the common good (Uscinski et al., 2016). The psychological tendency of identifying agency and patterns for the explanation of world events, defined as "agentivity" and "patternicity," was also recognized as a common antecedent for both religious and conspiratorial beliefs (Wood & Douglas, 2018).

Many studies have found robust and consistent evidence of a positive relationship between belief in conspiracy theories and Covid-19 vaccine hesitancy (Bertin et al., 2020; Jennings et al., 2021; Pivetti et al., 2021; van Oost et al., 2022). In the Covid-19 context, several conspiracy theories on big pharmaceutical groups went viral, among which the claim that those groups orchestrated the Covid-19 pandemic to increase their profits by selling their medical products and vaccines—which, in turn, are supposed to have harmful side effects (Ullah et al., 2021).

Conspiracies concerning big pharma are not new or unusual (Blaskiewicz, 2013; Jolley & Douglas, 2014), but in the pandemic situation they were instrumental in the relationship between conspiratorial ideation and negative attitudes toward vaccination. It is worth noting that an individual's conspiratorial beliefs are rarely isolated to one specific conspiracy. Indeed, it has been shown that conspiratorial ideation is usually embedded within a monological system of conspiratorial beliefs (Goertzel, 1994). The list of theories that one believes in can thus be extended to include new emerging conspiracies, for example concerning Covid-19 (Miller, 2020).

In sum, we expect that believing in conspiracy theories mediates the relationship between believing in divine immanence and vaccine hesitancy. Nonetheless, we hold this mechanism as conditional to what beliefs in divine immanence mean for a person. In fact, believing in the immanent presence of God or the divine can have a different meaning, whether or not these beliefs are framed within a system of beliefs derived from institutional religion. Conversely, adherence to institutional religiosity, expressed by active participation within a religious community, supplies a reference framework for one's beliefs and implies a higher religious involvement (Nicolet & Tresch, 2009). Accordingly, for those adhering to institutional religiosity, beliefs in divine immanence are more likely to be coherent with an established theological view and to provide a religious endowment of meaning to their lives. In other words, these immanence beliefs strictly pertain to the religious sphere and are less frequently associated with the tendency to explain world events with agents and patterns beyond the religious sphere. Moreover, institutional religion tends to deter unofficial explanations of world events.

In contrast, for people not adhering to institutional religiosity, beliefs in divine immanence are more likely to pertain to a broader sphere including alternative spirituality and conspiracy beliefs. Indeed, the emergence of conspirituality—a web movement characterized by a combination of conspiracy theories and alternative spirituality—took place outside the sphere of institutional religiosity (Ward & Voas, 2011). In the light of this argumentation, we further specify our hypothesis as follows:

H2. The relationship between believing in divine immanence and vaccine hesitancy is mediated by

beliefs in Covid-19-related conspiracy theories only among people not adhering to institutional religiosity.

3. Data, Measures, and Methods

3.1. Data

The study was carried out in the Italian context, characterized by a particularly homogeneous religious landscape. Italy is a Catholic country, where the large majority of people report belonging to the Catholic religion (73%, according to 2018 data from the European Social Survey). Church attendance has declined significantly since the 1970s (Vezzoni & Biolcati Rinaldi, 2015) but remains higher than in most European countries. Nonetheless, despite this ongoing process of secularization, a consistent portion of the Italian population still perceives the presence of God and the divine in their lives (Garelli, 2020).

Data were collected from the ResPOnSE Covid-19 project carried out by the SPS Trend Lab of the University of Milan. Aimed at monitoring the dynamics of the Italian public opinion during the Covid-19 pandemic, the project consisted of several data collection waves, the first conducted in April–July 2020 with a rolling-cross-section design ($N > 15,000$; see Vezzoni et al., 2020). In the present study, we analyzed data from wave 4 (1,782 cases in which both specific measures of religiosity and beliefs in Covid-19 conspiracy theories were included) collected during a period in which people not vaccinated against Covid-19 were subject to several restrictions imposed by the Italian government (November–December 2021). The sample was drawn from an opt-in panel of an Italian survey research institute (Swg S.P.A.) and reproduced population distributions for sex and geographical area of residence.

3.2. Measures

The dependent variable in our analyses was vaccine hesitancy, measured by a question assessing vaccination propensity in a hypothetical future pandemic (“If a situation similar to the Covid-19 pandemic occurred again in the future—if there was a vaccine—how favorable would you be to get vaccinated to protect yourself from the virus?”), with answer categories on a 0 (*not at all*)–10 (*totally*) scale. We assume that vaccine hesitancy is a real individual attribute that holds a causal relationship with the measurement outcome, that is, the answer to the question on vaccination propensity is a function of the position of a respondent on the latent attribute indicated as vaccine hesitancy (Borsboom, 2005, p. 153). The function is inverse, as lower scale values indicate higher vaccine hesitancy.

The main independent variable was represented by individual beliefs in divine immanence, measured by an additive index (0–10 scale) of the following three items (measured on a 0–10 agreement scale):

1. Miraculous healings do exist.
2. God intervenes directly in our lives.
3. Prayer can heal physical illness.

All items assume that there is divine intervention in the mundane world. We assume that positive answers imply that the respondent holds the belief that God or other spiritual entities intervene directly in one’s life. The consistency of this interpretation is supported by the detection of high average correlations between items (inter-item correlation = 0.76, confirmed also by confirmatory factor analysis with all factor loadings >0.85).

We expected the relationship between believing in divine immanence and vaccine hesitancy to be mediated by beliefs in Covid-19 conspiracy theories. The latent attribute underlying these beliefs pertains to the propensity to think that small groups are plotting for their own benefit against the common good in the specific context of the pandemic. We measured this variable by an additive index (0–10 scale) of three items referring to the level of agreement (0–10 scale) to the following widespread conspiratorial narratives:

1. Behind the diffusion of Covid-19, there is a plan for governments to limit the freedom of citizens.
2. Vaccination is a tool to increase the power of global finance.
3. The communicated data concerning the Covid-19 pandemic are not true.

The items were strongly correlated, supporting the idea that the answers are a function of the same underlying attribute (inter-item correlation = 0.78, confirmed also by confirmatory factor analysis with factor loadings mean = 0.86, with the last item having a slightly lower fit).

Finally, we included a measure of institutional religiosity in the model as a moderating variable. We considered whether the respondent attended religious services in the last seven days (dichotomous: yes, no). We can argue that attendance to religious services has a double edge as far as adherence to an institutional religion is concerned: firstly, it means to be a member of a community organized around an institutional religion and, secondly, it means to be regularly exposed to the official preaching of that institution.

It is worth noting that in the Italian context, to a large extent, attendance at religious services equates to attendance at the Sunday Mass (Vezzoni & Biolcati Rinaldi, 2015), which is a precept of the Catholic church. As the survey does not contain a measure of religious denomination, we cannot identify respondents belonging to non-Christian religions. Nonetheless, those people represent only a small minority of the Italian population (according to 2018 data from the European Social Survey, 3.6% of the Italian population).

Finally, we accounted for the following control variables: gender, age class (three categories), level of

education (three categories), and geographical area (four categories).

3.3. Methods

The relationship between believing in divine immanence and propensity to get vaccinated (H1) was tested through a linear regression model controlling for the above-mentioned socio-demographic variables. For H2, we specified a moderated mediation regression analysis (Hayes, 2022). This model allows us to test the mediating effect of beliefs in Covid-19 conspiracy theories on the relationship between religiosity and vaccine hesitancy while identifying whether this mechanism acts differently depending on institutional religiosity (moderation). A path diagram of the model (without control variables, which are nonetheless included to compute the parameters' estimates) is shown in Figure 1. The model allows for testing whether institutional religiosity, measured by attendance to religious services, moderates both the direct (solid line) and indirect (dashed lines) relationships between believing in divine immanence and vaccination propensity. Analyses were performed using the PROCESS procedure for SPSS Version 4.1 (Hayes, 2022).

4. Results

The large majority of Italian respondents showed a high vaccination propensity (sample mean = 8.37, 86% of respondents providing a score equal to or higher than six). As shown in Table 1, we analyzed whether believing in divine immanence (sample mean = 4.24) is associated with vaccination propensity while controlling for the main socio-demographic variables. The regression analysis supported H1: the stronger the beliefs in divine immanence, the lower the vaccination propensity. The estimated difference in vaccination propensity between people with the weakest and the strongest belief in divine immanence was equal to -0.87 on a 0–10 scale. For what concerns the control variables, Table 1 shows that, consistent with previous research (e.g., Lazarus et al., 2020), highly educated people and older people had a higher vaccination propensity. However, no gender differences were detected.

Our second analysis explored the mechanism underlying the association between religiosity and vaccine hesitancy. According to our second hypothesis, Covid-19-related conspiracy beliefs (sample mean = 3.10) mediates the relationship between believing in divine

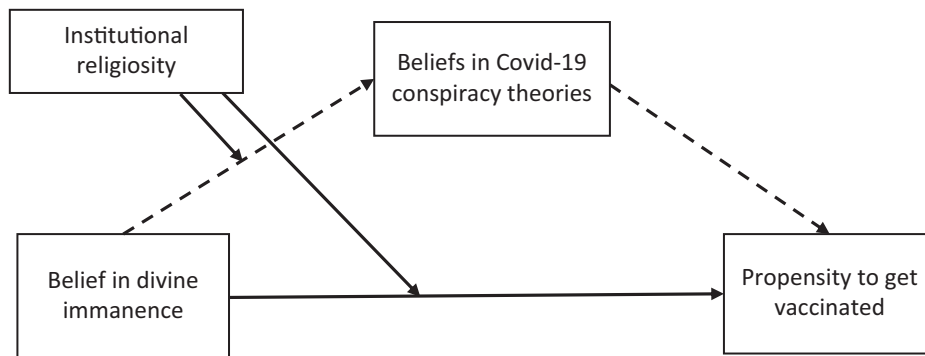


Figure 1. Moderated mediation model.

Table 1. Linear regression analysis with the propensity to get vaccinated as the dependent variable.

Independent variables	Scale/categories	Coefficients (s.e)
Belief in divine immanence	0–10	-0.08*** (0.02)
Gender (Ref. cat.: Female)	Male	0.05 (0.14)
Level of education (Ref. cat.: Low)	Medium	0.48* (0.25)
	High	0.84*** (0.27)
Age class (Ref. cat.: 18–34)	35–54	-0.12 (0.21)
	55 and over	0.89*** (0.21)
Geographical area (Ref. cat.: North–West)	North-East	-0.76*** (0.21)
	Centre	-0.28 (0.21)
	South and Islands	-0.21 (0.19)
Constant		8.09*** (0.33)
R-squared		0.06

Notes: ***p < 0.01, **p < 0.05, *p < 0.1; unstandardized regression coefficients and standard errors in parentheses; N = 1,372.

immanence and vaccination propensity, but only for people not adhering to institutional religiosity. In Figures 2 and 3, we split the results of the moderated mediation analysis, by presenting the results respectively for those not adhering to and adhering to institutional religiosity. Figure 2 shows that, among people who did not attend religious services in the last seven days, the negative relationship between believing in divine immanence and propensity to get vaccinated is fully mediated by beliefs in Covid-19 conspiracy theories. The indirect effect is indeed negative (-0.14) and significantly different from zero, while the direct effect proves to be substantially null (0.02, not significantly different from zero).

Conversely, for respondents adhering to institutional religiosity (Figure 3), the relationship between believing in divine immanence and vaccination propensity was not mediated by Covid-19 conspiracy beliefs (indirect effect equal to -0.05, not significantly different from zero). This finding is driven by the weak relationship between believing in divine immanence and conspiratorial beliefs (0.09). This analysis also revealed a persisting positive association between believing in divine immanence and propensity to get vaccinated (direct effect equal to 0.10, significantly higher than zero). Although this effect was not the object of a specific hypothesis, this finding is in line with

prior research. This positive relationship emerged only for those respondents who frame their beliefs within a value system supplied by the Catholic church, which actively supports vaccination.

Finally, the index of moderated mediation, namely, the difference between conditional indirect effects, provides further evidence for H2. The index is equal to 0.09 (difference of the indirect effects between those attending and those not attending religious services), and statistically different from zero (bootstrap 95% confidence interval between 0.02 and 0.17). Complete results of the moderated mediation regression analysis are presented in the online Supplementary File.

5. Discussion

Vaccine hesitancy depends on several individual factors. Our work shows that religiosity also plays a role, although this role remains limited and should be qualified, as various dimensions of religiosity and contexts may differentially impact vaccine hesitancy. Our study focused on Italy, a country where Catholicism is the predominant institutional religion. There are no doctrinal arguments against vaccination and the main Catholic authorities expressed support for vaccines and even reinforced

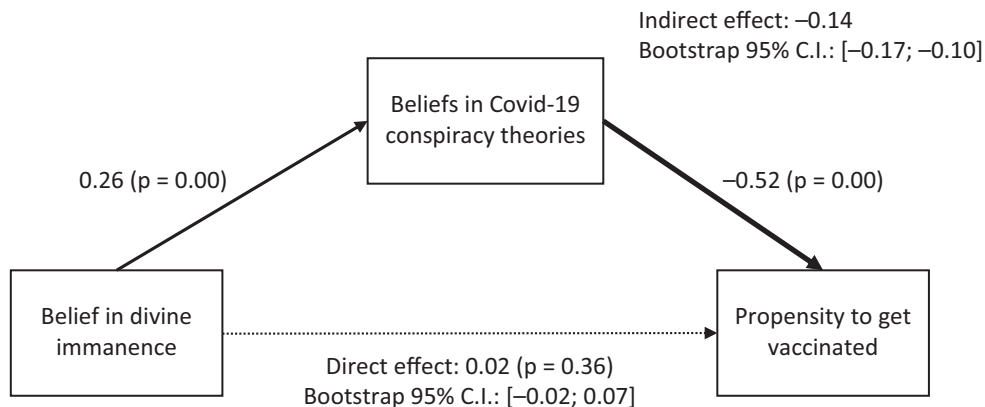


Figure 2. Mediation regression analysis for respondents who did not attend religious services in the last seven days. Notes: Unstandardized regression coefficients; N = 1,372 (non-attenders = 1,002).

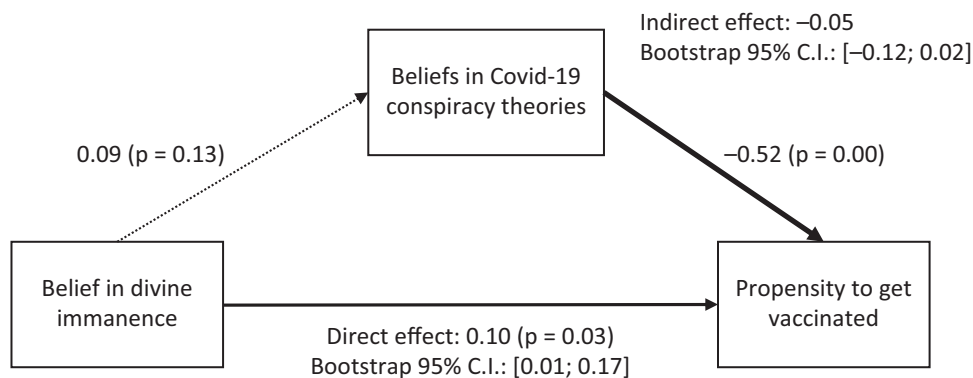


Figure 3. Mediation regression analysis for respondents who attended religious services at least once in the last seven days. Notes: Unstandardized regression coefficients; N = 1,372 (attenders = 370).

their position during the Covid-19 pandemic. Despite the Church's tenets and teachings, however, other aspects of individual religiosity may influence one's position about vaccines. We focused on beliefs in divine immanence, namely the propensity to attribute divine agency in the explanation of mundane events. This belief entails a perceived lower level of control over own life, a trait that has proven to enhance vaccine hesitancy (Olagoke et al., 2021). In line with our hypothesis, our findings revealed a positive association between beliefs in divine immanence and vaccine hesitancy. Moreover, we extended our argument by proposing a possible mechanism to explain this association: the mediating role of Covid-19 conspiracy beliefs. Although our findings support this idea, the mediation mechanism only holds for respondents not adhering to institutional religiosity.

Focusing on the mediation mechanism within respondents not belonging to institutional religion, there are two possible interpretations of the role played by beliefs in conspiracy theories. The first, in line with our mediation model, suggests a causal interpretation of the effects, where believing in divine immanence is an antecedent of conspiratorial ideation. The second stresses the similar underlying trait shared by beliefs in divine immanence and conspiracy theories, namely, the attribution of agency to hidden forces. Therefore, among people not belonging to institutional religiosity, believing in divine immanence and conspiracy theories could be rooted in the same system of beliefs. Thus, believing in divine immanence and conspiracy theories would be indicators of the same underlying attribute. In light of this second interpretation, one could argue that, when not framed within a coherent religious view, beliefs in divine immanence cease to pertain to a strictly religious sphere. Following Voas (2009, p. 164), we can expect that, for the majority of these people—belonging to a heterogeneous group characterized by fuzzy fidelity—“religion plays a very minor role (if any) in their lives.” Given the relevance and contentious nature of this argument, future research is required to investigate further this argument.

We acknowledge some limitations of our study. Firstly, some of the measures we used to operationalize our concepts should be carefully considered and possibly improved in further research. Our main independent variable, that is, believing in divine immanence, is measured by a battery that was not previously validated. The moderating variable, adhering to institutional religiosity, was sub-optimally measured by means of church attendance. Though several arguments support this choice, it would be important to include better indicators of this dimension in future research. In addition, to ease the interpretation of the results in the moderated mediation analysis, we considered vaccination propensity as a dependent variable rather than respondents' actual Covid-19 vaccination behavior, as it allowed us to estimate linear regression models instead of logistic ones. As a robustness test, we also ran the analysis using the behavioral variable as a dependent outcome and

the results are consistent with the ones presented in this article.

Secondly, we focused on beliefs in Covid-19 conspiracy theories as a mediator of the relationship between believing in divine immanence and vaccine hesitancy, but we cannot rule out that other factors (e.g., locus of control) can mediate such a relationship as well.

Thirdly, our study focused on a scarcely investigated dimension of religiosity which was expected to be theoretically associated with beliefs in conspiracy theories, that is, believing in divine immanence. Our work followed the suggestion raised by Ward and Voas (2011) with the intriguing concept of “conspirituality.” In this vein, further research could enrich our understanding by considering other dimensions of religiosity theoretically associated with these beliefs, such as forms of spirituality and alternative religiosity, which share the same cultic milieu (Asprem & Dyrendal, 2015).

Lastly, we have pointed out that our analyses are based on survey data referring to a specific country (Italy) with specific religious characteristics. In particular, a large portion of the Italian population still perceives the presence of God in their lives and adheres to institutional forms of religiosity (Garelli, 2020). We hope to see additional research testing the generalizability of our results beyond our context of reference, especially in more secularized countries.

Despite these limitations, this contribution has aimed at shedding light on the relationship between religiosity and attitudes toward vaccination, by proposing and testing a mechanism—never investigated so far—which provided an explanation to such a relationship. Future research is welcome to proceed in this direction.

Conflict of Interests

The authors declare no conflict of interests.

Supplementary Material

Supplementary material for this article is available online in the format provided by the authors (unedited).

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