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# A new look on politicized reticence to vaccination: populism and COVID-19 vaccine refusal

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Recent research published in *Psychological Medicine* shows alarming levels of COVID-19 vaccine refusal (Barello, Palamenghi, & Graffigna, 2021; Salali & Uysal, 2020). The main factors behind this refusal are social disadvantage, the lack of virus exposure, and the perceived vulnerability, conceived as the perceived risk of falling ill with COVID-19 and of anticipated severity of the health consequences of COVID-19 (Cesarotti et al., 2021). Also, people who refuse vaccination have low trust in institutions, in the health system, in medicine, and in the scientists (Allington, McAndrew, Moxham-Hall, & Duffy, 2021). Moreover, they tend to believe in conspiracies behind the COVID-19 pandemic and to build their beliefs on COVID-19 based on the social media, where the fake news about COVID-19 have proliferated (Salali & Uysal, 2020). As all these aspects resemble populist constellation of beliefs and attitudes, we suggest that one important factor behind COVID-19 vaccine refusal might be populist orientation.

In April 2021, we interviewed online a quota sample of the Italian adult population, stratified by sex, age, and geographic area of residence. A total of 1148 respondents (men = 49.3%,  $M_{age} = 49.26$ ,  $s.d. = 14.74$ ) participated in the survey. Among them, 16.8% stated that they had been already vaccinated, 71.5% that they were not vaccinated but they will as soon as possible, and 11.7% that they were not vaccinated and had no intention to. This is in line with the national rates of that period, when an average of 16.6% of the Italian population had been vaccinated. We contrasted those who refused vaccination (1) *v.* those who were already vaccinated or had the intention to (0). The survey also included a measure of populist orientation, Roccato, Corbetta, Cavazza, and Colloca's (2019) Populist Orientation Scale. Perceived vulnerability to COVID-19, gender (1 = man), age, perceived economic status, and virus exposure have been controlled for in the analysis. Perceived vulnerability and populist orientation have been estimated as latent variables; for the latter, we controlled the response set using the correlated uniqueness approach. Details on the sampling methods and the specific items wording, coding, and descriptive statistics are available at [https://osf.io/wsdp3/?view\\_only=3fe12ca895594beb90eb8d10457d3961](https://osf.io/wsdp3/?view_only=3fe12ca895594beb90eb8d10457d3961).

We regressed vaccine refusal on populist orientation, controlling for vulnerability, its interaction with populism, gender, age, perceived economic situation, and virus exposure. Table 1 reports the results. Men and respondents with a disadvantaged economic situation had lower chances of refusing the vaccine. No differences emerged in relation to age or virus exposure. Interestingly, populist orientation was positively associated to vaccine refusal, independently of the direct and moderated effect of people's perceived vulnerability. The method we used is a limitation of this study, because online quota samples hardly allow a generalization of the results. The overlap between the percentage of participants and of Italians who have been vaccinated, although reassuring, could be by chance. However, our focus was on the association between populism and vaccination and not on the quota of vaccinated people, and association analyses are more robust to sampling biases than percentage estimates.

A worldwide vaccination campaign is essential in the struggle against COVID-19. A decision to make COVID-19 vaccination mandatory could be counter-productive because it could foster psychological reactance to vaccination in the short term and a reduction in institutional trust in the medium term (Sprengholz, Betsch, & Böhm, 2021). In this study, we report that people with a populist orientation tend to refuse the COVID-19 vaccine, in line with previous research showing that vaccine refusal is often politicized, but that its politicization is not limited to the traditional left-right cleavage (Ward, Alleaume, Peretto-Watel, & the COCONEL Group, 2020).

Our results can have relevant implications as concerns the strategies to tackle politicized COVID-19 vaccine refusal. The political, scientific, and health institutions are the main sources of information on the importance of being vaccinated against COVID-19. However, the pro-vaccination campaigns from these institutions might not be very effective: People who trust institutions do not need to be convinced to be vaccinated, while populists are hardly influenced by messages from a source they discredit. On the long term, a rise in institutional trust and in the population's health literacy could undoubtedly foster vaccine acceptance. This

**Table 1.** Moderated regression model predicting COVID-19 vaccine refusal

	Coeff.	95% CI	<i>p</i>	OR
Gender	−0.13	−0.21 to −0.05	0.01	0.57
Age	0.00	−0.08 to 0.09	0.93	1.00
Perceived economic situation	−0.20	−0.28 to −0.12	<0.001	0.56
Virus exposure	0.02	−0.04 to 0.07	0.55	1.00
Populist orientation	0.22	0.06–0.37	0.02	1.84
Perceived vulnerability	−0.37	−0.52 to −0.21	<0.001	0.37
Populist orientation × perceived vulnerability	−0.16	−0.36 to 0.04	0.18	0.56
<i>R</i> <sup>2</sup>	0.29			

Standardized logistic regression coefficients are reported.

will need forward-thinking political choices and relevant investments in the education system. In the short term, we should probably build on populists' and COVID-19 vaccine refusers' preference for the social media as a source of information about COVID-19. The Internet could be used collaboratively with physicians to spread correct information about the costs and benefits of accepting and refusing vaccination. Moreover, COVID-19's hoax and myths could be combated involving influencers such as millennial students in information campaigns targeted to people with low institutional trust (Deweyani et al., 2021). As social identity dynamics are at play in the decision of refusing the COVID-19 vaccine (Weisel, 2021), such influencers could also work to convince vaccine refusers to abandon their current allegiances from which their beliefs are derived and to join a different opinion-based group holding more rational evidence-based views.

To conclude, we want to highlight that the COVID-19 vaccine refusal is not a *unicum* of the COVID-19 pandemic, to the point that the WHO placed vaccine hesitancy among the 10 most severe threats to global health. Thus, the idea that specific political and

social ideologies, such as populist orientation, stand behind vaccine refusal can have social and health implications that go even beyond the current COVID-19 pandemic and might inform the management of new potential health emergencies.

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