Appendix E: Justification for the covariates included in our models

Determinants of perceptions of transparency have not been studied extensively, but the literature about political support (including trust in governments) and how people process and evaluate new information allows us to identify variables that are likely to be related both to COVID-19 false beliefs and perceptions of government transparency. The paragraphs below explain the rationale behind the inclusion of trust in scientists, partisan identification, ideology, media consumption, and socio-demographic variables in our regression models.

Trust in scientists

Anti-intellectualism is not a new concept (Hofstadter, 1963), but many researchers suggest that it is on the rise in the United States and other developed democracies (e.g., Motta, 2018). This general distrust of scientists and other experts is strongly connected to citizens' response to the COVID-19 pandemic, including false beliefs, the adoption of preventive health behaviors, and information acquisition (Merkley & Loewen, 2021). Given that experts are highly featured in information about COVID-19, including communication by the government, those with higher distrust of scientists are more likely to avoid this information altogether or perceive it as less credible (Merkley & Loewen, 2021), which might increase perceptions that governments are keeping information or lying to the public.

Political orientations

Generally speaking, evaluations of the government tend to be influenced by citizens' prior attitudes about the governing party or leader. Because citizens are prone to confirmation bias (Kunda, 1990; Taber & Lodge, 2006), they are more likely to accept information on government transparency that aligns with their predispositions (van der Cruijsen & Eijffinger, 2010). Many studies have documented the importance of source credibility (the perceived expertise or trustworthiness of a source of information) on the acceptance of the message (Benegal & Scruggs, 2018; Greer, 2003; Pornpitakpan, 2004). As a result, partisan identification is likely to be an important factor influencing perceptions of transparency, as citizens with greater faith in the governing party are more likely to believe the information they are sharing (Mabillard & Pasquier, 2015; Walle & Bouckaert, 2003). Public polling shows, for example, that perceptions that the current administration is too secretive can change quickly among partisans when a new government takes office, with people forming negative opinions of an administration they dislike (Fenster, 2017).

Studies documenting the influence of ideology and partisan identification find that liberals/Democrats are more likely to perceive COVID-19 as a serious threat and are less likely to

fall for COVID-19 misinformation than conservatives/Republicans, with consequences for compliance with public health measures (Calvillo et al., 2020; Kerr et al., 2021). Still, people on both sides of the political spectrum are likely to believe in and share ideologically-consistent misinformation, especially at the extremes (Enders & Uscinski, 2021; Osmundsen et al., 2021; van Prooijen et al., 2015). Although ideology was also correlated with perceptions of pandemic severity in Canada, we expect ideology and partisan identification to play a smaller role in the Canadian context than in the United States, given lower levels of political polarization (Pennycook et al., 2021) and elite consensus on the need for broad and science-informed collective action on the coronavirus pandemic (Merkley et al., 2020).

Information consumption

Holding governments accountable is one of the defining roles of the media in a democracy (Asp, 2007). Hence, the media tend to scrutinize the decision-making process and provide cues that influence citizens' perceptions of government transparency (de Fine Licht, 2014). An extensive literature suggests that people's opinions can be influenced by the nature of the information they receive and believe in (Levendusky, 2013; Motta et al., 2020; Swami et al., 2013).

Because of information needs, the COVID-19 pandemic led to a significant increase in news consumption, especially among those who had previously been inattentive to conventional media (Casero-Ripollés, 2020). Media coverage of COVID-19 varied significantly between countries. Coverage was politicized in the United States, where media like Fox News sometimes propagated misinformation (Jamieson & Albarracin, 2020), with consequences for COVID-19 attitudes and behaviors (Stecula & Pickup, 2021). Conversely, it was less politicized and more likely to focus on policy in countries like Canada (Sommer & Rappel-Kroyzer, 2020). Exposure to traditional media was thus potentially more likely to inform citizens about what governments were doing and less likely to polarize evaluations of government transparency in Canada than in the United States.

While social media platforms are important channels through which governments and media outlets can share information during a pandemic, they can also facilitate the propagation of misinformation and hinder response efforts (Bridgman et al., 2020; Hagar, 2013). For example, following the arrival of the Zika virus in the United States, researchers found that posts spreading false or misleading information were more popular than posts spreading accurate public health information (Sharma et al., 2017). Comparing the effects of trust in different sources of information on COVID-19, Vardavas et al. (2021) found that evaluations of government communication were the lowest among those having social media or other non-official/non-traditional sources as their most trusted information source. There are different reasons why social media could lead to more negative perceptions of transparency, including the fact that social media consumption is driven by algorithms where content that generates a negative emotive response (fear, disgust) is more likely to become viral (Vosoughi et al., 2018).

The effects of social media might depend on how they are used (unfortunately, the data we have do not have that level of specificity, hence we cannot examine this aspect here). For instance, exposure to information from governments on social media (following a government agency or official, for example) is associated with improved perceptions of transparency (Song & Lee, 2016).

Socio-demographics

Lastly, we control for socio-demographic variables (age, gender, education, region) because they have been found to affect evaluations of government communications (Vardavas et al., 2021) and trust in government (Newton & Norris, 2000). The relationship between socio-demographic variables and either evaluations of government communication or trust is not consistent across studies, potentially because the effect of socio-demographic variables depends on what governments are actually doing. For example, perceptions of government transparency might be more strongly influenced by the actions of governments among highly educated citizens, who are more knowledgeable about what governments are doing. That being said, men and younger citizens generally have lower trust in governments and more negative evaluations of government communication and transparency (Jia et al., 2019; Newton & Norris, 2000; Vardavas et al., 2021). Finally, controlling for the region of residence is important because the pandemic and health restrictions have been felt differently in different regions, different provinces have had different responses to COVID-19, but also because of the existence of regional political cultures that might influence perceptions of the government (Wiseman, 2007).