



Article

Political Stability, Confidence in the Future, and Values

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Abstract: According to the literature, modernization is associated with cultural change along the two value dimensions: from survival to self-expression/emancipative values and from traditional to secular-rational values. This value change has generally been viewed as the product of both material and non-material forces; however, previous studies have used mainly material proxies for non-material, social, and psychological variables. Instead, in this paper, we propose and test a modified theoretical model that allows us to assess both the direct and indirect effects of material conditions, such as economic wealth and political stability, on emancipative and secular values by including variables that capture non-material factors, such as the respondents' fears about their economic future and about the possible destabilization of the political systems in which they live. We conduct empirical analyses both at the individual level, using the cross-sectional data from the World Values Survey, and at the aggregate level. Both sets of analyses revealed that fears about the stability of the political system are the single most significant determinant of value change.

Keywords: value change; modernization; confidence in future; political stability



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1. Introduction

In a postscript to the interview with Zakaria and Yew (1994, p. 125) it was noted that “the dominant theme throughout our conversation was culture. Lee returned again and again to his views on the importance of culture and the differences between Confucianism and Western values. In this respect, Lee is very much part of a trend. Culture is in. From business consultants to military strategists, people talk about culture as the deepest and most determinative aspect of human”.

From the early 1980s there has been a renewed interest in culture. Organizational psychologists became interested in organizational culture to explain, for instance, why Japanese firms were outperforming their American counterparts (Schein 1990). Semioticians developed a semiotics of culture (Mandelker et al. 1990) and provided the field of cultural studies with new tools that could be employed in the study of culture, cultural history, and related issues. After all, “if we consider culture as a complex textual structure, then semiotic analysis is justified” (Scolari 2009, p. 131). (Political) culture was invoked to explain the performance of (democratic) institutions (Putnam 1992), the conditions under which democratic regimes may consolidate and stabilize (Inglehart and Welzel 2003), the productivity of public managers (Bruce 1994), the identification of solutions for complex policy problems (Ney and Verweij 2014), variation in the level of political accountability (Pasquino and Pelizzo 2022), and it was used to forecast the conflicts of the future and the remaking of the world order (Huntington 1993).

The literature on culture has long been aware of the fact that ‘culture’ is a polysemic term, as it is used to denote a wide range of phenomena or is associated with a wide variety of meanings (Kroeber and Kluckhohn 1952) and it has long spoken of culture with adjectives. What was peculiar in the cultural renaissance was the fact that while scholars recognized the stability or resilience of culture, they were also aware of the fact that culture is not immutable, that culture is multifaceted, and that different measures/metrics can be devised to measure various types of value change. For instance, the scholars working with

the World Value Survey data have spoken of postmaterialist, emancipative, and secular values and attitudes.

Three lines of inquiry can be detected in the study of value change. The first line of inquiry has attempted to explain how each of these values could be measured or why the measurements pertaining to such values were properly specified (Haller 2002; Lakatos 2015; Welzel and Inglehart 2016). The second line of inquiry has discussed the far-reaching consequences of value change. In this regard, the studies have noted that the development of emancipative values is correlated with, and is possibly responsible for, the rise of non-violent protests (Welzel and Deutsch 2012), the level of democracy (Welzel and Inglehart 2009, p. 135), effective democracy (Welzel et al. 2003), economic freedoms (Bates 2014), and happiness (Lim et al. 2020; Minkov et al. 2020). The third line of inquiry has explored the causes or the determinants of cultural change noting that cultural change in its multi-faceted forms is promoted in non-linear, non-automatic, and complex ways, by socio-economic development, a sense of existential security (Norris and Inglehart 2011), and generational replacement (Abramson and Inglehart 2009).

In this paper, we explore how material conditions pertaining to the material well-being and the (objective) security that individuals enjoy/experience and respondents' perceptions about their (and their countries') economic and political security, affect the respondents' value orientation. The analysis of both micro-level and macro-level data reveals that the value orientation is not simply a function of material conditions (material well-being and political stability)—as a large body of research has already uncovered—but also of the respondents' fears about their future economic conditions and/or about the possible destabilization of the political systems in which they live.

The remainder of the paper is divided into five sections of unequal length. In the first section, we review the literature on the determinants of value change. In doing so we show that traditionally, value change has been explained as the product of material conditions, social characteristics, or a combination of both. After illustrating how both modernization, secularization, and the emergence of emancipative values were seen as a function of changes in material and non-material conditions, we point out that previous studies used material proxies for non-material, social, and psychological variables. Building on this discussion in the second section, we present our theoretical framework. The peculiarity of the (structural) model that we propose is that in addition to assessing the direct and indirect impact of material conditions (wealth and political stability), it factors in variables designed to capture the respondents' fears about their future economic well-being and about the possible (political) destabilization of their countries. In the third section, we present the results of a set of analyses performed at the individual level, while in the fourth section we analyze data aggregated at the country level. Both sets of analyses consistently reveal that fears about the stability of the political system are the single most significant determinant of value change. As Norris and Inglehart (2011) have suggested, where respondents have greater (political) fears, they are less likely to have emancipative and secular values. In the fourth and final section, as is customary, we draw some tentative conclusions and suggest how this line of research could be further developed.

2. Literature Review

Deudney (1999, p. 31) lamented that social sciences in general and political science in particular had neglected in recent years the analysis of natural (material) variables in “favor of human and institutional variables”. Historically, however, social science explanation(s) have attempted to explain social phenomena on the basis of material conditions, social characteristics or a combination of the two. Cultural characteristics and cultural change have also traditionally been explained along these lines, even though, over the years, as we are about to document, the analytical focus has shifted back and forth from natural factors to social ones.

Since ancient times, from Hippocrates and Aristotle the forefathers of the social sciences, the philosophers have recognized that different people have specific characters

and customs, what social scientists now call cultures, and that these differences were in large part attributable to climatic differences. Aristotle attributed variation in spiritedness to differences in climate; Hippocrates described, similarly, differences in the courage to express an opinion that was, years later, reiterated by Vitruvius ([Pollio 1874](#), p. 131), while Pliny the Elder used climatic differences to explain the differences between savage and prudent people.¹

While the notion that material, and subordinately natural, forces may affect human beings gained some appeal in the Middle Ages—Aquinas, for instance, in his *Summa Theologiae*, acknowledges the impact of natural forces (such as the disposition of the stars) on physical strength and complexion ([Aquinas 1989](#), 1a 96, 3)—much less attention, if any, has been paid to whether material forces, through the impact on physical conditions, also have an impact on values and/or culture.

With the advent of modernity, and especially in the 18th century, the relationship between material conditions and culture(s) experienced a sort of renaissance. As [Mazza \(2020\)](#) recently noted the impact of material conditions on the culture of nations was acknowledged not only, most famously, by [Montesquieu \(\[1748\] 1979\)](#), but also by [Fontenelle \(1688\)](#), [Pascal \(1700\)](#), [Arbuthnot \(1751\)](#), [Du Bos \(1740\)](#), [Chardin \(1711\)](#), [Voltaire \(1771\)](#), [Algarotti \(1792\)](#), and [Barère de Vieuzac \(1797\)](#).

While the impact of material forces has been widely recognized, the agreement as to how compelling the material explanations of social phenomena or of the material determinants of culture are, has been far from unanimous. Some voices, as [Grosley \(1757\)](#), claimed that social phenomena and culture were also and/or predominantly, the product of non-material, social conditions such as legislation, while other voices noted that cultural characteristics were, in a move that somehow anticipates [Frobenius \(1897\)](#), the product of cultural exchanges ([Fontenelle 1688](#)) and that climate could have an impact on the cultural characteristics only of the most backward or least cultured societies and people ([Fontenelle 1688](#); [Hume 1975](#)).

This tradition, in addition to discussing the impact of material conditions on the character of people or the culture of nations, also noted that culture varied across nations, that these differences could be offset by the interaction of people ([Fontenelle 1688](#)), and that in spite of the cultural changes that occur over time, the people/nations preserve some cultural dispositions that are shaped by the material conditions under which they live ([Barclay \[1614\] 1733](#)). Regardless of the importance of these material conditions, these studies—from Aristotle to Fontenelle—were also willing to acknowledge the importance of non-material forces such as exchanges/interactions ([Diderot 1992](#)), governments ([Aristotle 2009](#); [Fontenelle 1688](#)), legislation, communication and/or ‘contagion’ ([Hume 2018](#)), and ideas ([Weber 1946](#)). The recent ideational turn of the neo-institutionalists ([Blyth 2002](#)), revived Weber’s notion that ideas matter in providing actors with cognitive guidance, in understanding the world, in shaping an actor’s interests, and ultimately in providing behavioral guidance.²

One of the most compelling formulations of the impact of both material and non-material forces in shaping people, and, subordinately, culture, can be found in the *Theses on Feuerbach*, in which [Marx \(1969\)](#) famously noted that:

The materialist doctrine that men are products of circumstances and upbringing, and that, therefore, changed men are products of other circumstances and changed upbringing, forgets that men themselves change circumstances and that the educator himself must be educated.

This quote highlights, in the eyes of [Mondolfo \(1968\)](#), several facts: that Marx is not a materialist, that (contra Fromm) his philosophy cannot be categorized as ‘spiritual existentialism’, that his philosophy should be regarded instead as a philosophy of praxis (or *reale Humanismus*), which acknowledges the centrality and the transformative power of human action: men are the makers, or the authors, of their own life/history and because of this they have the ability to change the circumstances under which they operate and to change their culture.

In the course of the past few decades, there has been a renewed interest in the study of (political) culture, of its consequences, of its causes, and of cultural change. Studies produced in this line of research have noted that culture matters (Banfield 1958; Lipset 1959; Almond and Verba 2015; Inglehart and Welzel 2009), that some facets of political culture have greater implications for the functioning of political systems than others (Pasquino and Pelizzo 2022) and that, in spite of the persistence of certain cultural traits or characteristics, culture actually changes.

Studies devoted to cultural change have noted that it is essential to distinguish between short- and long-term changes (Abramson and Inglehart 2009), that socio-economic development is responsible for the emergence of values that are more compatible with democracy (Inglehart and Welzel 2009), and that the extent to which values change is a function of both improvements in material well-being and the persistence of tradition. In this regard, Inglehart and Welzel (2009, pp. 37–38) noted that “a society’s value system reflects an interaction between the driving forces of modernization and the persisting influence of tradition”.

The process of cultural, economic, and political change is what is generally called modernization. There are two cultural changes that generally align with modernization. First, in modernizing societies post-material values replace materialist values and, second, secularization occurs as a society modernizes (Norris and Inglehart 2011). The discussion of the causes or determinants of cultural change in recent years mirrors the philosophical discussions that, from Aristotle to the philosophers of the Enlightenment, have pitted the advocates of materialist explanations against the advocates of the non-material (social, moral, and psychological) causes.

The work of Inglehart and his co-authors is emblematic in this regard. Norris and Inglehart (2006) for instance show that religiosity is a function of material conditions. Specifically, it is positively correlated with economic inequality and negatively correlated with income. This means that religiosity is higher in countries that are poorer or in which there are higher levels of economic inequality, and lower in countries that are richer or in which the economic differences of the population are smaller. In such an explanation, with the usual claim that correlation is no causation, a cultural variable (religiosity) is seen as a function of material variables (income, economic inequality).

By contrast, Welzel and Inglehart (2009) showed how the social and political characteristics of individuals (education, religion, and religiosity) and societies (action resources, democratic stock, and religious demography) affect the level of emancipative values in a country. In explanation, a cultural characteristic (emancipative values) was viewed as a function of a series of non-material, social, and cultural factors.

A third stream of studies in this tradition has attempted to explain cultural change, differences, or variations on the basis of both material and non-material/social factors. For example, in an article published by the *American Sociological Review*, Inglehart and Baker (2000, pp. 39–40) show that economic modernization explained 63 per cent of the variance in survival/self-expression values, that three other cultural variables (communist political heritage, protestant cultural heritage, and orthodox religious heritage) had a (statistically) significant impact on the distribution of survival/self-expression values around the globe, and that the combination of material and non-material factors explained 84 per cent of the variance. Similarly, Inglehart and Welzel (2010, pp. 560–61) showed that self-expression values are not only strongly and significantly correlated with several indicators of economic development (material), but also with several indicators of socio-political development.

An interesting effort to explain cultural change on the basis of both material and non-material (social and cultural) conditions is represented by Norris and Inglehart (2011) who have produced the most comprehensive examination of the determinants of secularization. Norris and Inglehart (2011, p. 5), specifically, noted that “the process of secularization—a systematic erosion of religious practices, values and beliefs—has occurred most clearly among the most prosperous social sectors living in affluent and secure post-industrial nations”. In these affluent societies, the influence that religion exerts on the population’s

daily life has decreased. However, [Norris and Inglehart \(2011, p. 4\)](#) noted, “the importance of religiosity persists most strongly among vulnerable populations”. Secularization, in other words, reflects “the extent to which people have a sense of existential security—that is, the feeling that survival is secure enough that it can be taken for granted” ([Norris and Inglehart 2011, p. 4](#)).³

Over the years Norris and Inglehart have employed different metrics to capture “the sense of existential security”. In fact, while the sense of existential security was measured on the basis of aggregate economic indicators such as GDP per capita by [Norris and Inglehart \(2011\)](#), a few years later it was measured on the basis of the Gallup Lived Poverty Index—which, by capturing the frequency with which people go without basic needs, is believed to provide a better estimation of existential security ([Norris and Inglehart 2015](#)).

Nevertheless, the frequency with which people go without basic needs, as much as does GDP per capita, provides an indication of material conditions. It is only by assuming that the sense of security is a function of these material conditions, that one could infer a sense of security from GDP per capita or lived poverty. While it is obviously reasonable to assume that people living in poverty may be concerned about their material well-being, it is much less clear whether and to what extent GDP per capita or the lived poverty index adequately reflect a sense of security for more affluent people in more affluent societies. Individuals who are materially better off may be as concerned about the future as individuals who are living in conditions of material deprivation, because while the latter may be concerned about their inability to improve their material conditions, the former may be concerned about their inability to sustain their material well-being in the future. The sense of existential security is not simply a function of past/present conditions, but is also and, possibly more importantly, about what the future may have in store⁴. The sense of existential security may reflect the respondents’ subjective assessments of the risks, such as economic downturn or conflict, that may detrimentally affect their future well-being and survival.

3. Theoretical Framework

This is why it is necessary to look beyond material conditions to properly appreciate the sense of security and to understand the determinants of cultural change. In order to do so, we propose to make some adjustments to the theoretical framework proposed by Norris and Inglehart.

The framework proposed by [Norris and Inglehart \(2011, 2015\)](#) could be depicted in the following way: Material conditions → (sense of security) → cultural change.

We propose instead a framework that allows us to assess the (direct and indirect) impact of material factors as well as the impact of non-material considerations. Specifically, we view cultural change as a function of political and economic confidence (non-material), and of political stability and economic conditions (material)—which may have both a direct and indirect effect on cultural change (Figure 1).

The model acknowledges the fact that material conditions (political stability and wealth) may have a direct impact on value change, that they may also have an indirect impact by influencing the respondents’ economic and political confidence, and that the (economic and political) confidence may also be responsible for value change—which is precisely what we plan to test in the remainder of the paper.

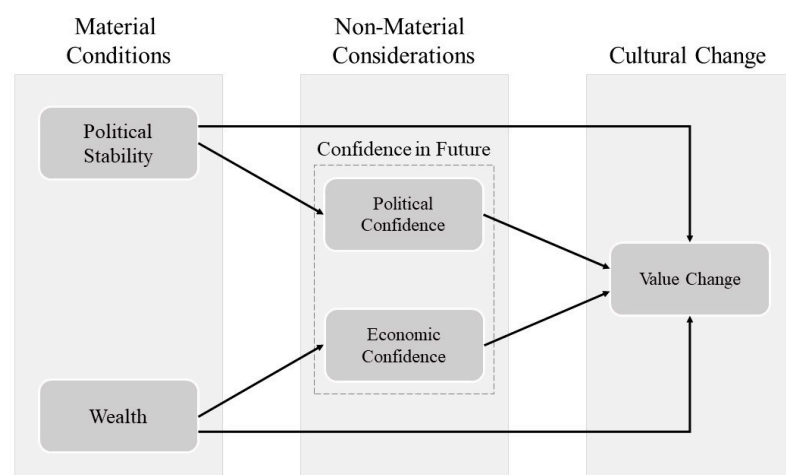


Figure 1. The theoretical framework that explains the relationships between material conditions, non-material considerations, and cultural change.

4. Individual-Level Analysis

We start our empirical analysis by exploring the individual-level cross-sectional data from the latest available version (v4.0) of the World Values Survey (WVS) wave 7 (Haerpfer et al. 2022). The dataset includes 87,822 observations from 59 countries/territories: Andorra, Argentina, Australia, Bangladesh, Armenia, Bolivia, Brazil, Myanmar, Canada, Chile, China, Taiwan, Colombia, Cyprus, Ecuador, Ethiopia, Germany, Greece, Guatemala, Hong Kong SAR, Indonesia, Iran, Iraq, Japan, Jordan, Kazakhstan, Kenya, South Korea, Kyrgyzstan, Lebanon, Libya, Macau SAR, Malaysia, Maldives, Mexico, Mongolia, Morocco, Netherlands, New Zealand, Nicaragua, Nigeria, Pakistan, Peru, Philippines, Puerto Rico, Romania, Russia, Serbia, Singapore, Vietnam, Zimbabwe, Tajikistan, Thailand, Tunisia, Turkey, Ukraine, Egypt, United States, Venezuela. The surveys were conducted in 2017–2022. Some descriptive statistics are presented on Table 1 showing that 53% of the respondents were female and that the age of the respondents ranged from 16 to 103 years, with an average of 42.85 years.

Table 1. Descriptive statistics of socio-demographic variables.

Variable	Description	Mean	Std. Dev.	Min.	Max.
<i>female</i>	A dummy variable for respondent's sex: 0 if male, 1 if female.	0.53	0.50	0	1
<i>age</i>	Respondent's age in years.	42.85	16.36	16	103
<i>children</i>	Number of respondent's children.	1.77	1.74	0	24
<i>university</i>	A dummy variable for educational attainment: 1 if completed university-level education, 0 otherwise.	0.25	0.44	0	1
<i>incomedecile</i>	Income scale from 1 to 10.	4.86	2.08	1	10

Source: WVS wave 7 (2017–2022) v4.0.

The dependent variable in our analysis is people's value orientations/preferences. We use the updated measures of secular and emancipative values introduced by Welzel (2013). He claims that the previously established measures of secular-rational and self-expression values (Inglehart 1997; Inglehart and Welzel 2005) are “too fuzzy” and “do not focus sharply on the themes of secularization and emancipation” (Welzel 2013, p. 59). Two variables representing Welzel's measures of secular and emancipative values can be found in the WVS datasets. These two variables are based on 12 survey items each (Table 2). The responses to the original survey items were recoded so that the highest scores represented the most secular/emancipative positions⁵.

Table 2. WVS items used for constructing Welzel’s indexes of secular and emancipative values.

Emancipative Values	Secular Values
(1) Respondent thinks that abortion is justifiable	(1) Respondent does not consider him- or herself a religious person
(2) Respondent thinks that divorce is justifiable	(2) Respondent does not consider faith as an important child quality
(3) Respondent thinks that homosexuality is justifiable	(3) Respondent rarely attends religious services
(4) Respondent does not agree that men make better political leaders than women do	(4) Respondent is not proud of his/her nationality
(5) Respondent does not agree that university is more important for a boy than for a girl	(5) Respondent does not prioritize making his/her parents proud as a goal
(6) Respondent does not agree that men make better business executives than women do	(6) Respondent does not think that greater respect for authority is needed
(7) Respondent considers independence as an important child quality	(7) Respondent has low confidence in courts
(8) Respondent considers imagination as an important child quality	(8) Respondent has low confidence in the police
(9) Respondent does not consider obedience as an important child quality	(9) Respondent has low confidence in the army
(10) Respondent prioritizes protecting freedom of speech as a goal	(10) Respondent thinks that accepting a bribe is justifiable
(11) Respondent prioritizes giving people more say in important government decisions as a goal	(11) Respondent thinks that cheating on taxes is justifiable
(12) Respondent prioritizes giving people more say about how things are done at their jobs and in their communities as a goal	(12) Respondent thinks that avoiding a fare on public transport is justifiable

To construct the explanatory variables (*political_confidence* and *economic_confidence*) that measure respondents’ confidence in future, we use 4 survey items from the WVS (Table 3). The index for political confidence is constructed by taking the mean of three survey items (Cronbach’s $\alpha = 0.91$) asking to what extent the respondent is worried about (1) a war, (2) a terrorist attack, and (3) a civil war. The responses to these items were recorded so that the highest scores corresponded to the lowest anxiety levels: 1 = ‘very much’, 2 = ‘a great deal’, 3 = ‘not much’, 4 = ‘not at all’. The measure for economic confidence is based on one survey item that measures to what extent the respondent is worried about losing or not finding a job. The responses to this item were recorded in the same way: 1 = ‘very much’, 2 = ‘a great deal’, 3 = ‘not much’, 4 = ‘not at all’.

To investigate the effects of these explanatory variables (*political_confidence* and *economic_confidence*) on secular and emancipative values (*secular* and *emancipative*), we conduct four ordinary least squares (OLS) estimations with country fixed effects. The results of these estimations are presented in Table 4. In addition to the aforementioned explanatory variables, we include controls for gender, age, number of children, education, income, and religion.

The estimation results suggest that income positively and significantly influences emancipative values. However, the effect of income on secular values is statistically nonsignificant. Political confidence positively and significantly influences both secular and emancipative values, while the effect of economic confidence is insignificant in both cases. Including the *political_confidence* and *economic_confidence* variables in the models significantly increases the between-group R^2 (from 30.6% to 49.3% for emancipative values and from 6.99% to 18% for secular values). These results suggest that the model (2) explains

49.3% of variation in emancipative values between countries, while the model (4) explains 18% of variation in secular values between countries.

Table 3. Political and economic confidence in the future.

Variable	Survey Items	Mean	Std. Dev.	Min.	Max.
<i>political_confidence</i>	(1) Respondent is not worried about a war involving his/her country.	2.14	1.02	1	4
	(2) Respondent is not worried about a terrorist attack.				
	(3) Respondent is not worried about a civil war.				
<i>economic_confidence</i>	(4) Respondent is not worried about losing his/her job or not finding a job.	2.17	1.11	1	4

Source: WVS wave 7 (2017–2022) v4.0.

Table 4. Results of the micro-level regression analyses.

	(1)	(2)	(3)	(4)
	<i>emancipative</i>	<i>emancipative</i>	<i>secular</i>	<i>secular</i>
<i>female</i>	0.0228 *** (0.00265)	0.0244 *** (0.00296)	−0.00540 (0.00282)	−0.00417 (0.00301)
<i>age</i>	−0.000894 *** (0.000162)	−0.000850 *** (0.000155)	−0.00115 *** (0.000147)	−0.00110 *** (0.000155)
<i>children</i>	−0.00358 *** (0.000758)	−0.00343 *** (0.000790)	−0.00271 *** (0.000728)	−0.00252 ** (0.000743)
<i>university</i>	0.0364 *** (0.00317)	0.0358 *** (0.00326)	0.00272 (0.00291)	0.00165 (0.00292)
<i>incomedecile</i>	0.00293 *** (0.000688)	0.00276 *** (0.000695)	−0.000952 (0.000889)	−0.000765 (0.000845)
<i>political_confidence</i>		0.00900 *** (0.00220)		0.0128 *** (0.00299)
<i>economic_confidence</i>		0.000420 (0.00140)		−0.000295 (0.00160)
<i>_cons</i>	0.427 *** (0.00851)	0.410 *** (0.00885)	0.391 *** (0.0109)	0.367 *** (0.0142)
r2_within	0.0476	0.0488	0.0260	0.0295
r2_between	0.306	0.493	0.0699	0.180
N	62926	56472	63097	56601

Source: WVS wave 7 (2017–2022) v4.0. Note: The table presents shortened versions of the regression outputs: dummies for religious denominations are not included. Standard errors in parentheses. ** $p < 0.01$, *** $p < 0.001$.

5. Country-Level Analysis

We now turn to the analysis at the macro or aggregate level. According to [Welzel \(2013, p. 84\)](#): “At the individual level, we deal with value preferences that characterize personalities. At the societal level, we deal with value prevalences that describe cultures”. As we previously discussed, we hypothesize that the relationship between country-level indicators, such as income/gross domestic product (GDP) per capita and political stability, and value change is mediated by the citizens’ economic and political confidence in future. To test our theoretical propositions, we build structural equation models (SEMs) with Stata’s SEM Builder ([Acock 2013](#)). We use maximum likelihood (ML) estimation method with bootstrap resampling (200 replications) to obtain the standard errors robust to nonnormality ([Nevitt and Hancock 2001](#)) and small sample size ([Cheung 2007](#)). As exogenous variables we use the following indicators: *loggdp*—the log of per-capita GDP based on purchasing power parity (current international \$) from the [World Bank \(2019\)](#); and *stabilityGII*—Political Stability score from the Global Innovation Index by [Cornell](#)

University, INSEAD and WIPO (2019), which “captures perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically motivated violence and terrorism”.⁶ Endogenous variables in our SEMs include: *avg_political_confidence* and *avg_economic_confidence*—country mean scores for political and economic confidence; and *avg_secular* and *avg_emancipative*—country mean scores for secular and emancipative values. The SEMs with and without the variables for political and economic confidence as mediators are presented on Figures 2 and 3.

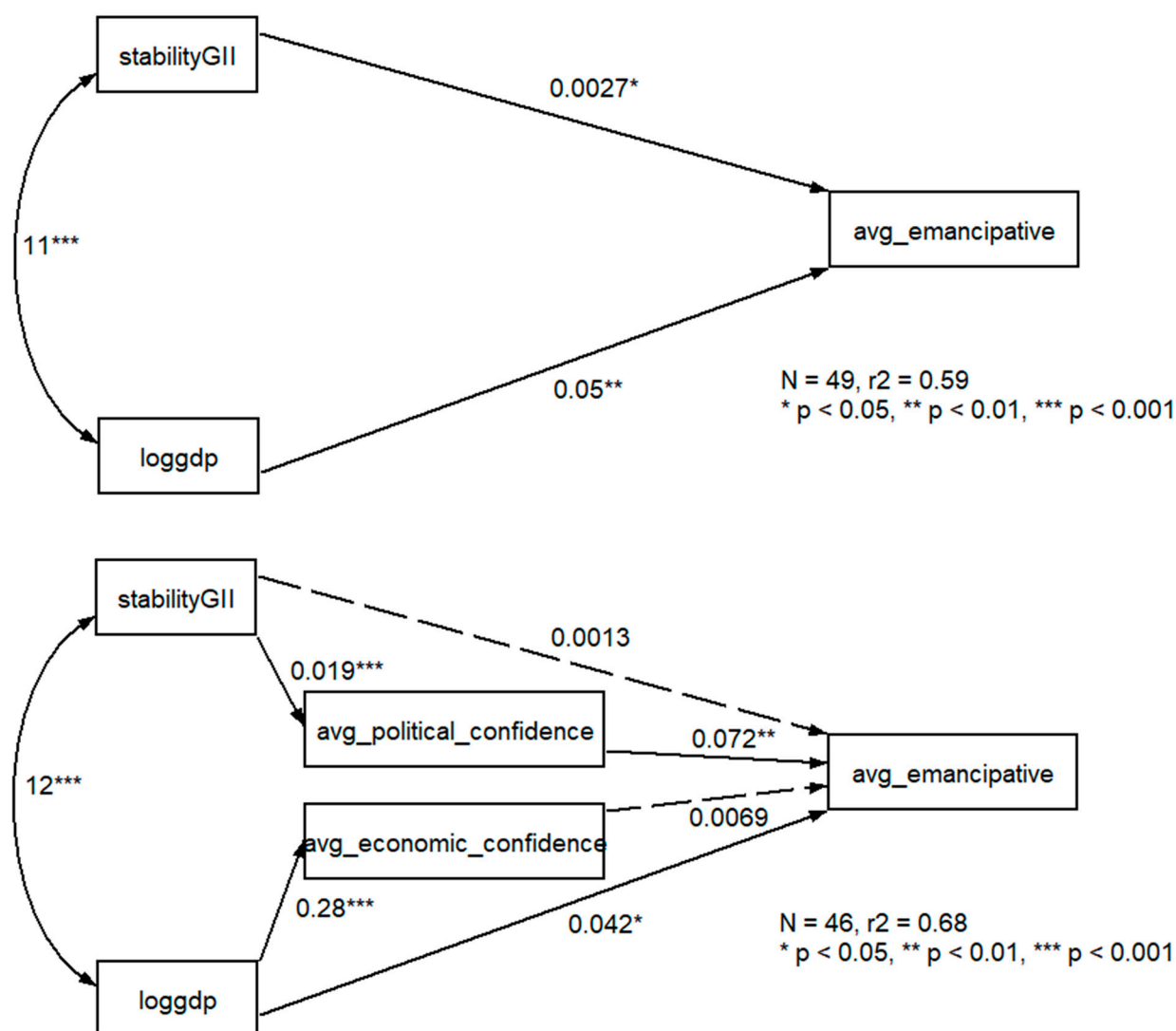


Figure 2. SEMs for emancipative values. Note: Solid lines are used to denote significant paths.

Table 5 presents the estimates of the mediation analysis on emancipative values in column (1) and secular values in column (2). The mediation analysis on emancipative values shows that the positive effect of political stability is fully mediated (Baron and Kenny 1986) by political confidence. The direct effect of GDP per capita on emancipative values is positive and statistically significant, but the indirect effect is insignificant. Hence, the results suggest that the relationship between GDP per capita and emancipative values is not mediated by economic confidence.

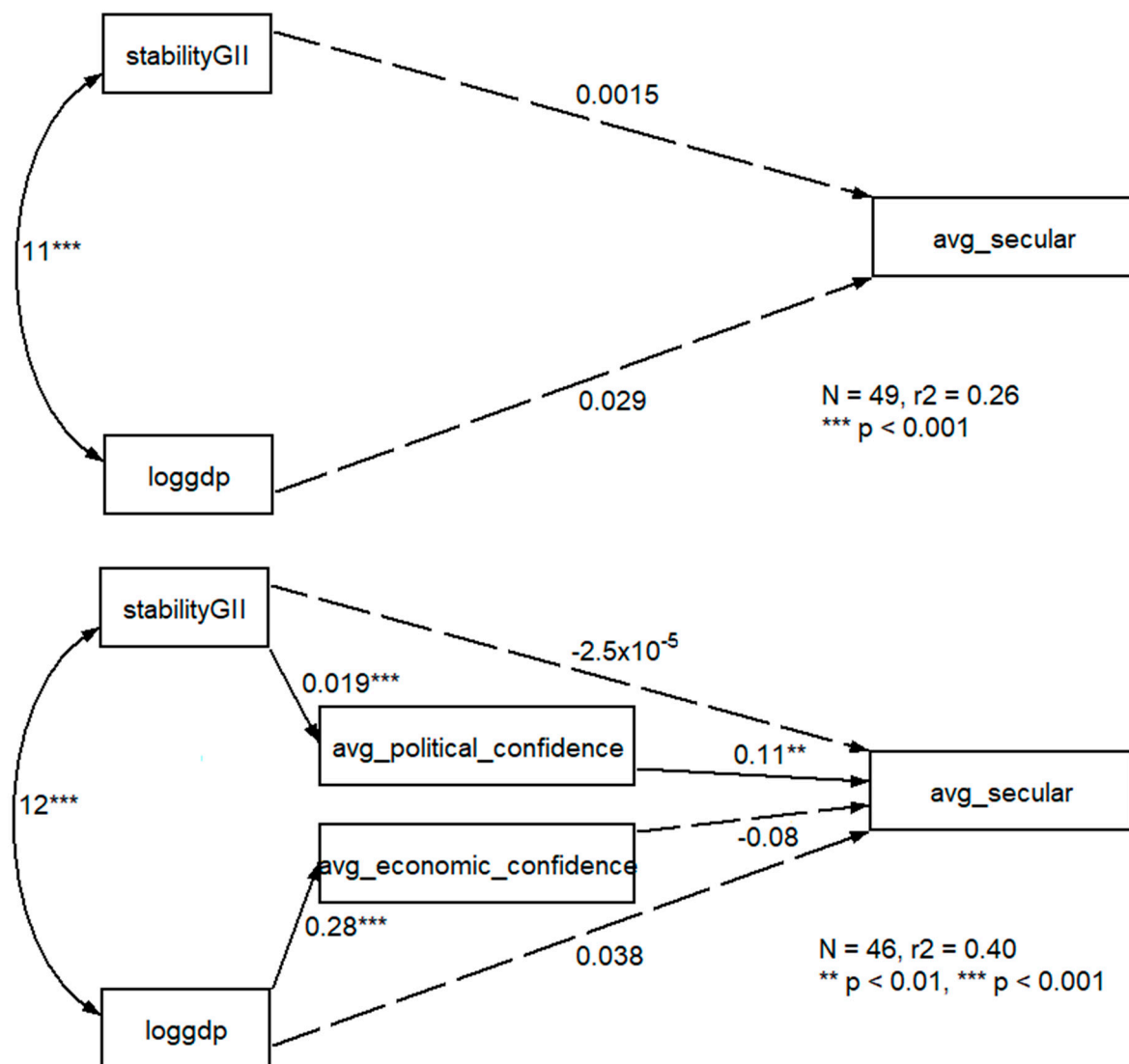


Figure 3. SEMs for secular values. Note: Solid lines are used to denote significant paths.

Table 5. Mediation analyses of secular and emancipative values.

	(1)	(2)
	<i>avg_emancipative</i>	<i>avg_secular</i>
Direct effects:		
<i>avg_political_confidence</i>	0.071814 ** (0.0277026)	0.1059207 ** (0.0381963)
<i>avg_economic_confidence</i>	0.0069227 (0.040003)	−0.0797436 (0.0433415)
<i>stabilityGII</i>	0.0013144 (0.0009684)	−0.0000253 (0.0015394)
<i>loggdp</i>	0.0418878 * (0.0195107)	0.0384333 (0.0278613)
Indirect effects:		
<i>stabilityGII</i>	0.0013342 * (0.0005433)	0.0019679 * (0.0007823)
<i>loggdp</i>	0.0019597 (0.011485)	−0.0225736 (0.0133759)

Table 5. Cont.

	(1)	(2)
Total effects:		
<i>avg_political_confidence</i>	0.071814 ** (0.0277026)	0.1059207 ** (0.0381963)
<i>avg_economic_confidence</i>	0.0069227 (0.040003)	−0.0797436 (0.0433415)
<i>stabilityGII</i>	0.0026486 * (0.0010309)	0.0019426 (0.0017547)
<i>loggdp</i>	0.0438475 ** (0.0167362)	0.0158597 (0.0267663)

Note: Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

The mediation analysis of secular values demonstrates that there is no statistically significant direct relationship between GDP per capita and secular values. Although the positive direct effect of political stability on secular values is insignificant, there is a significant positive indirect effect, suggesting full mediation (Baron and Kenny 1986) or indirect-only mediation (Zhao et al. 2010).

6. Discussion

The literature has generally claimed that cultural change is the product of material and non-material forces. The purpose of the present paper was to explore the extent to which cultural changes—such as the diffusion of emancipative values and secularization—are exclusively the product of material conditions or whether they reflect non-material, subjective factors such as political and economic confidence.

The analysis of the individual data reveals that material conditions matter, but also that non-material, ideational factors matter as well. For example, variation in the level of emancipative values is a function of both wealth and confidence about a country's political stability, while variation in the level of secularism is instead primarily a function of the confidence about a country's expected political stability in the future. This finding is in line with what Norris and Inglehart (2011) had suggested when they noted that the extent to which an individual is willing to embrace secular values reflects her sense of existential security. Where respondents believe that their country will remain politically stable, they are more likely to secularize, whereas in those settings in which there is greater uncertainty as to what the future may bring respondents are more likely to hold on to religious values.

Building on this analysis, we also analyzed aggregate data. We did so to assess whether and to what extent cultural change, the pervasiveness of emancipative and/or secular values, is influenced by the material conditions under which respondents live, but also by their perception of political and economic risks.

Our analysis of macro-level data, in line with what we had already found at the micro-level, reveals that the diffusion of emancipative values is directly influenced by national income and political confidence. It also shows that political confidence is influenced by the level of political stability that a country enjoys; that the effect of political stability on emancipative values is mediated by political confidence.

With regard to the diffusion of secular values, our analyses reveal that political confidence is affected by political stability, that economic confidence reflects a country's wealth, but that political confidence is the only variable that has a significant impact on secularism. This means, concretely, that in countries in which the population fears the outbreak of a war, of a civil war or terrorist attacks, it is less likely to be as secular as a society in which such fears do not exist or are, at least, less widespread. This finding is in line not only with what we had detected with our micro-level analyses, but also with what Norris and Inglehart (2011, 2015) had theorized. The importance of religion reflects a sense of existential insecurity and, conversely, secularization is associated with, and promoted by, a sense of material security. What our analyses reveal is that the sense of material security is affected by a country's material conditions (as Norris and Inglehart had shown), but it cannot be

reduced to material conditions alone—subjective conditions, such as the perceived risk of conflict, matter as well. Our findings also suggest that the inclusion of these subjective (non-material) conditions in our model provides a more appropriate way of assessing the causal links that Norris and Inglehart (2011) had theorized and tested and enables the analyst to achieve a better understanding of the determinants of cultural change.

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Appendix A

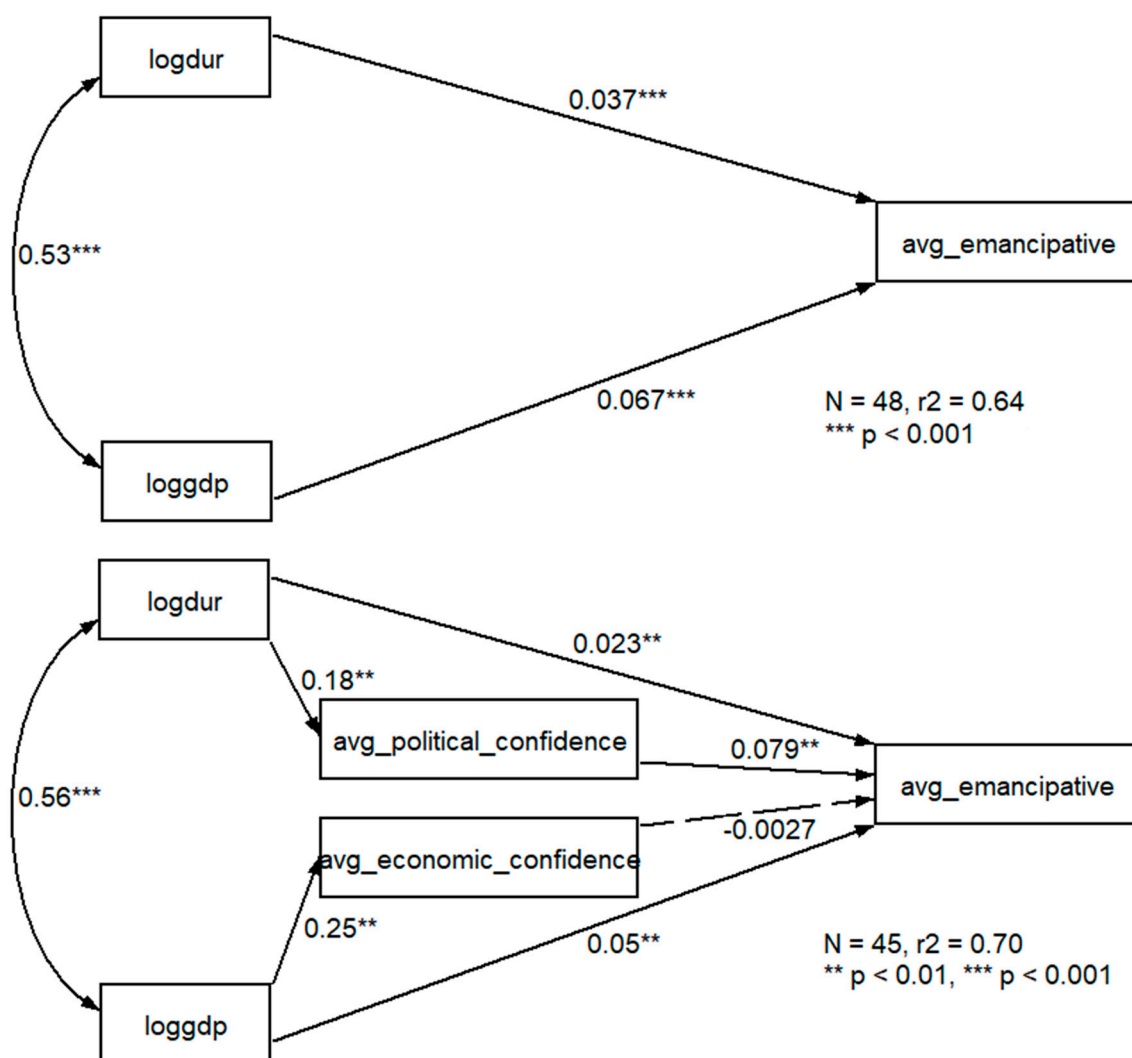


Figure A1. SEMs for emancipative values (using *logdur* as a proxy for political stability). Note: Solid lines are used to denote significant paths.

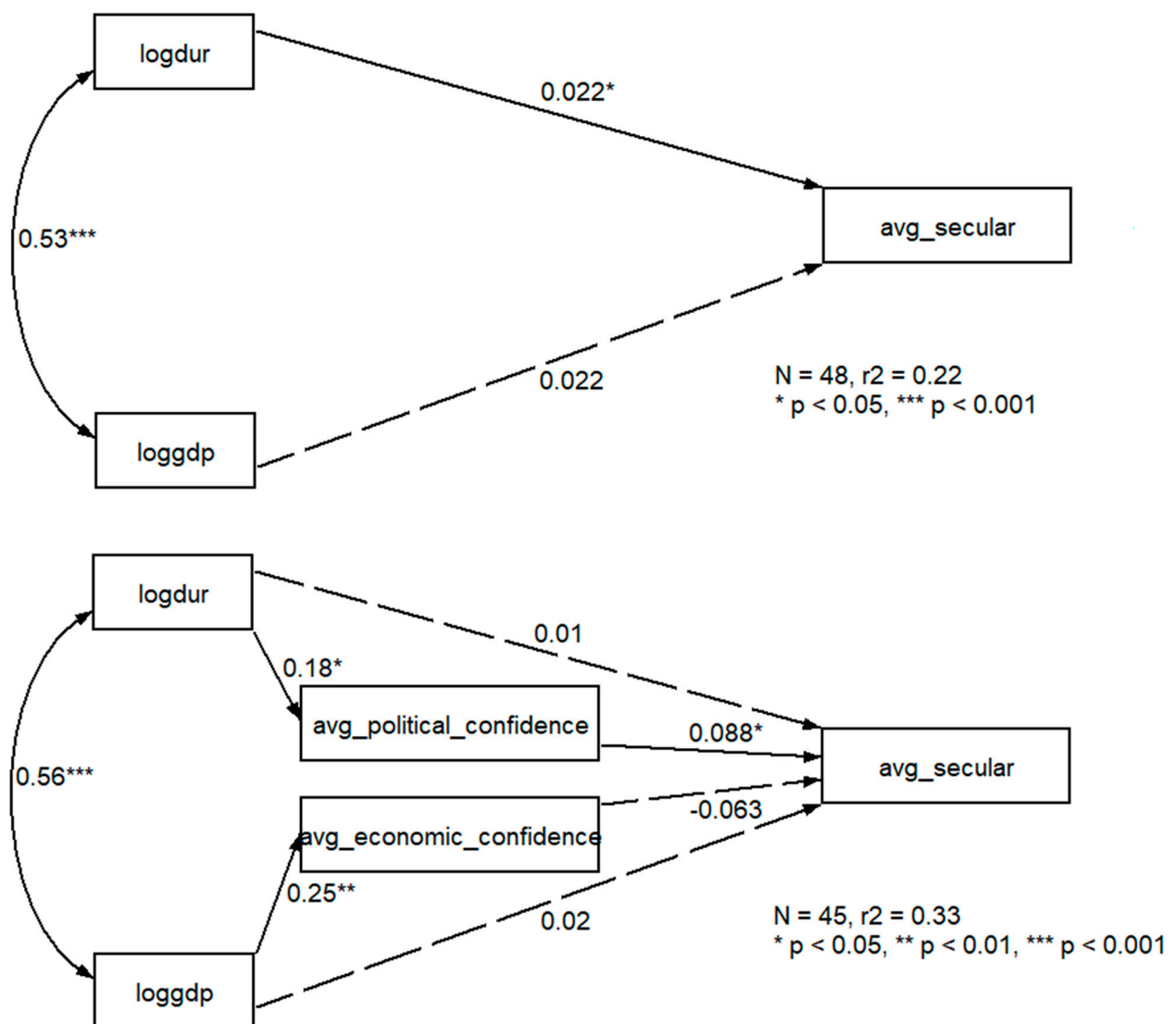


Figure A2. SEMs for secular values (using *logdur* as a proxy for political stability). Note: Solid lines are used to denote significant paths.

Table A1. Mediation analyses on secular and emancipative values (using *logdur* as a proxy for political stability).

	(1)	(2)
	<i>avg_emancipative</i>	<i>avg_secular</i>
Direct effects:		
<i>avg_political_confidence</i>	0.0789725 ** (0.0251982)	0.0877283 * (0.039817)
<i>avg_economic_confidence</i>	−0.0027231 (0.0397822)	−0.0632319 (0.0423627)
<i>logdur</i>	0.0233111 ** (0.008239)	0.010177 (0.0089137)
<i>loggdp</i>	0.0496988 ** (0.0176833)	0.0199653 (0.0202987)

Table A1. Cont.

	(1)	(2)
Indirect effects:		
<i>logdur</i>	0.0142666 * (0.0066536)	0.0158483 (0.0086528)
<i>loggdp</i>	−0.0006767 (0.009822)	−0.0157135 (0.0117555)
Total effects:		
<i>avg_political_confidence</i>	0.0789725 ** (0.0251982)	0.0877283 * (0.039817)
<i>avg_economic_confidence</i>	−0.0027231 (0.0397822)	−0.0632319 (0.0423627)
<i>logdur</i>	0.0375777 *** (0.0096792)	0.0260253 ** (0.0092617)
<i>loggdp</i>	0.0490221 ** (0.0168751)	−0.0042518 (0.0160873)

Note: Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Notes

- ¹ Aristotle, for instance, noted that “those who live in a cold climate and in Europe are full of spirit, but wanting in intelligence and skill; and therefore they retain comparative freedom, but have no political organization, and are incapable of ruling over others. Whereas the natives of Asia are intelligent and inventive, but they are wanting in spirit.” (*Politics*, book seven, part 7, para 1327). Similarly Hippocrates in his *On Airs, Waters and Places* (part 24) observed that “the inhabitants of Europe more courageous than those of Asia; for a climate which is always the same induces indolence, but a changeable climate (. . .) courage.” Pliny the Elder’s remark can be found in his *Naturalis Historia* II 80, 189.
- ² In this regard Pelizzo and Staphenurst (2013, p. 110) noted that in Blyth’s (early) work the emergence of a new ideational paradigm was the result of an ideational struggle that was in the end decided by the mobilization of resources. So, even in this case, one could detect the impact of material conditions on ideas.
- ³ The ‘uncertainty hypothesis’ has triggered a widespread discussion. While some scholars (Thomas 2007) have challenged the notion and the assumptions of ‘existential security’ and questioned whether it is causally linked to the resurgence of religion, other studies (Barber 2011) has instead shown that even when using a wide range of metrics to assess existential security, it has a clear and significant impact on religiosity.
- ⁴ On the importance of time horizons or more precisely on the differences between long term and short term orientations, see Geert (2001); while on the differences in time horizons across cultures see Mbiti (1990).
- ⁵ The exact procedure for constructing the indexes of secular and emancipative values is provided at the following link: <https://www.worldvaluessurvey.org/WVSCContents.jsp?CMSID=welzelidx&CMSID=welzelidx> (accessed on 27 November 2022).
- ⁶ We also test additional SEMs using a different measure for political stability. Specifically, as a proxy for political stability, we use *logdur*, which is the log of regime durability or the number of years since the latest regime change (Polity V 2018). These additional SEMs and the estimation results of the corresponding mediation analyses can be found in Appendix A (Figures A1 and A2, and Table A1).

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