

## Personal Cultural Values and the Attitude Towards Sustainability. A Correlational Analysis on Romanian Subjects

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### **Abstract**

*Our paper aims to establish potential connections between personal cultural values and the attitude towards sustainability, i.e. climate change. Both these dimensions are crucial when we are discussing how companies should strategically behave in the future, how policymakers should communicate with the public, and how we may safeguard the wellbeing of our communities and humanity as a whole. We found significant correlations between some of the personal cultural values of our respondents and attitudes about climate change, both positive and negative and this gives us a strong motivation that these themes deserve more robust research in the future.*

### **Keywords**

*Sustainability; personal cultural values; sustainable development; climate change.*

## **Introduction**

Linking sustainability to cultural personal values is not a new endeavor (Komatsu, Rappleye, & Silova, 2019; Lee & Herold, 2016), and we do know that how we behave is closely linked to the values we have. Also values, as opposed to attitudes and behaviors, are quite stable in time: “value orientations provide the foundations for attitudes and norms that guide behavioral intentions (or economic value) and actual behaviors. Values are limited in number, take time to change, are fundamental to beliefs, and are not directly related to specific situations (Fulton et al., 1996 quoted by Choi, Bennett, & Papandrea, 2007)” Thus measuring how values may influence our attitudes towards sustainable development, i.e. climate change is a useful tool for both managerial communication, public policy and stakeholder engagement for our future.

### Cultural values

To assess and measure the personal cultural values of Romanians we decided to use Hofstede's six dimensions model (2011) where each dimension is defined by a dichotomic pair of attributes or assertions. We are aware that in a large cultural group one can spot differences among individuals, thus the need to evaluate Hofstede's model at a personal level. For this, we have used the scale created by Yoo, Donthu, and Lenartowicz (2011) who are basing their items on the canonical five dimensions model of Hofstede (2011). It is important to note that our preference for the Hofstede model is based on repeated research on large databases at the international level performed by Hofstede (1991, 2001) and Minkov (2007), Hofstede, Hofstede, and Minkov (2010) (quoted by Hofstede, 2011) which show consistency of a stable series of traits, which are illustrative for different national cultures around the world. The five dimensions that define the canonical model of national cultures are *power distance* (which refers to how groups identify solutions to what pertains to human inequality. Cultures with high power distance are defined by assertions like: older people must be respected and feared, while those with low power distance are defined by assertions like: corruption is rare or employees should be consulted), *uncertainty avoidance* (which refers to the capacity of a society to tolerate ambiguity; it indicates if a culture can "program" its members to feel comfortable or not in a situation with a high level of uncertainty. Cultures with a weak avoidance level are defined by statements as: changing jobs is not a problem or teachers can say "I don't know", while those with a strong avoidance are defined by statements as: need for structure and clarity), *individualism vs collectivism* (represents the degree in which members of a society are integrated into groups. In individualistic cultures, the connections are weak, each to her own, while in collectivistic cultures people are integrated into strong cohesive groups. Statements defining individualism are connected to valuing the right to privacy and intimacy and encouragement for personal opinions, while those defining collectivism are: harmony must always be maintained or networking is more important than reaching objectives), *masculinity vs femininity* (which is a societal, not an individual trait refers to how values are distributed among the two traditional genders. Here are a few examples of statements defining masculinity: fathers deal with actions, mothers with feelings or boys should fight back; while feminine cultures are defined by statements as: sympathy for the vulnerable ones, men and women should be modest and kind), *short term vs long term orientation* (which is built on the values of Confucianism related to work ethics. On one hand, we have values such as perseverance, resilience and on the other, we have social relationships based on solidarity and mutual help, respect for tradition, and saving appearances. Short term orientation is defined by items like providing services to others is important or there are universal rules related to what is good and what is evil, while for the long term orientation we have statements as: what is good or evil depends on circumstances, it is good to learn from what other countries are doing good or the best events of life will take place in the future) (Hofstede, 2011, pp. 9-15). The sixth dimension, giving in to temptation vs self-control, has been added in 2010, in a common research study performed by Hofstede and Minkov (quoted by Hofstede, 2011) and refers to how easy societies provide gratification for human needs of fun and entertainment (Hofstede, 2011, p. 16). We will not expand on this dimension as this one has not been included in the personal cultural values operationalization model of Yoo, Donthu, and Lenartowicz (2011).

Hofstede's model has been used widely in a whole series of research connecting national culture to social and economic life. A meta-analysis of Kirkman, Lowe and Gibson (2006) identified over 180 research studies in different academic journals which used it. But it also has some detractors: Venaik and Brewer (2013) have published an analysis where they are criticizing the model and deem it irrelevant for the decisions to be made in international marketing. Perhaps by using the personal value model such criticism will be re-evaluated.

## Sustainability

As early as 1987, the World Commission on Economic Development described sustainability as a concept based on three crucial pylons: environment, economy, and equity. In other words, sustainability implies preserving the natural environment while promoting social equity without sacrificing economic growth and development (Brundtland, 1987). As a multidimensional construct, sustainability has been studied by natural and environmental scientists, sociologists, psychologists, political scientists, economists, and engineers. Thus, an academic consensus regarding the definition of sustainability has not been reached yet (Zwickle & Jones, 2018). The Brundtland Report underlines the importance of a long-term-oriented approach, defining sustainable development as "meeting the needs and aspirations of the present generation without compromising the ability of future generations to meet their needs" (Brundtland, 1987, p. 292). Sustainability and climate change are closely related. The former includes a series of practices meant to mitigate the negative effects caused by the shift in climate conditions, such as efficient use of biological resources, reduction of fossil fuel emissions, and movement towards a sustainable society and economy (Portney, 2015).

Climate change is one of the most significant issues of the 21<sup>st</sup> century and needs to be addressed by both science and society (Hagen, Middel, & Pijawka, 2016). In the last 150 years, changes in the Earth's climate have occurred at an alarming rate; scientists attribute them to the permanent impact of human activities on the composition of the atmosphere, land, and water. Thus, global climate change is defined as "a statistically significant variation in either the mean state of the climate or in its variability, persisting for an extended period (typically decades or longer)" (VijayaVenkataRaman, Iniyan, & Goic, 2012, p. 879). Global collective effort is now necessary to mitigate the negative impact of climate change and to adapt to the already irreversible transformations. This effort involves the implementation of sustainable and efficient environmental strategies and policies. Public support is crucial in this endeavor (Luís, Vauclair, & Lima, 2018). Nonetheless, people hold distinct or even polarized opinions on climate change (Gladston & Wing, 2019). Lately, there has been an increased demand for sustainable products and services due to the increased public concern towards climate change and its effects (Boggia, Massei, Paolotti, Rocchi, & Schiavi, 2018).

### Cultural values and sustainable practices

The cultural component plays a vital role in shaping people's attitudes and perceptions regarding climate change (Helgeson, van der Linden, & Chabay, 2012), but the necessity of integrating culture into sustainable development is still underestimated (Zheng et al., 2021). Cultural values influence not only the way people use natural resources but also their willingness to take part in sustainable practices (Horak, Arya, & Ismail, 2018). Recently, researchers have been applying this model in the field of sustainability and environmental protection. In fact, Lee & Herold (2016) have shown that the understanding of cultural values can partially explain the differences in sustainability practices between South Korean and Japanese corporations. Subsequently, Horațiu Dan (2019) explained that Hofstede's model considerably influences the performance of environmental policies at a national level. Probably one of the most extensive investigations was conducted by Zheng et al. (2021). Following a meta-analysis of over 300 papers, they concluded that cultural traits are correlated with the achievement of Sustainable Development Goals (SDGs) so that up to 26% of the performance variation in this field is explained by cultural values.

Previous studies (Peng, Dashdeleg, & Chih, 2012; Gănescu, Gangone, & Asandei, 2014; Halkos & Skouloudis, 2016) have identified a correlation between the aspects of national culture and organizational involvement in corporate social responsibility. However, since the results are inconsistent or even conflicting, it is unclear which specific cultural dimensions influence corporate social responsibility (CSR) practices. A high level of power distance was associated with lower social and institutional involvement in sustainability practices (Cox, Friedman, & Tribunella, 2011) and weaker CSR performance in organizations (Thanetsunthorn, 2015). Individuals from high power distance cultures perceive sustainability as a less significant issue and tend to be more accepting of social inequalities and environmental pollution (Tata & Prasad, 2015). Higher levels of uncertainty avoidance have been negatively linked to corporate sustainable development practices (Vachon, 2010). Nonetheless, subsequent studies (Cox et al, 2011; Esteban, Villardón, & Sánchez, 2017; Kucharska & Kowalczyk, 2018) argued that uncertainty avoidance is not a determinant for CSR engagement.

Collectivistic cultures tend to be more restrictive and less supportive of sustainability initiatives (Horak et al., 2018). Individualistic cultures, on the other hand, facilitate the agglutination of like-minded people into interest groups meant to protect the environment (Zheng et al., 2021). However, individualistic countries exhibit higher Ecological Footprint scores (Komatsu et al., 2019). Short-term-oriented cultures host beliefs about the inconvenience of sustainability initiatives as they do not provide immediate benefits (Tata & Prasad, 2015). Although this dimension has been less studied, Esteban et al. (2017) did not identify a significant correlation between long-term orientation and CSR. Feminine cultures tend to display a greater propensity for environmental well-being and life quality (Park, Russell, & Lee, 2007; Tata & Prasad, 2015), showing a higher level of CSR involvement (Peng et al, 2012) and prioritizing sustainability (Esteban, et al, 2017). Nevertheless, Cox et al. (2011) could not link the masculinity dimension with sustainability.

In 2005, a national culture analysis using Hofstede's model (Luca, 2005) portrayed Romania as a feminine and collectivistic country, although individualistic values were on the rise. Romania also has a high power distance level, a preference for short-term orientation, and low uncertainty avoidance. Therefore, identifying the extent to which Romanians are willing to embrace sustainability seems even more relevant. For a long time, Hofstede's dimensions of cultural values (2011) were applied exclusively at a national and organizational level for the definition and/or classification of cultures. Yoo, Donthu, and Lenartowicz (2011) operationalized the model for individual use and the final version of the *Cultural Values Scale* (CVSCALE) was validated following the confirmatory factor analysis. The scale has 26 items and was culturally adapted in 12 countries, with acceptable values in terms of internal consistency scores (Yoo, Donthu, & Lenartowicz, 2011). This tool paves the way for a new series of studies, linking individual cultural values to relevant social aspects.

Consequently, our study focuses on exploring possible correlations between individual cultural values and various aspects of sustainability. To measure individual sustainability perceptions and behaviors, we used the *Global Warming's Six Americas* survey (Maibach et al., 2011), developed by Yale Program on Climate Change Communication. The survey comprises 15 items and four variable categories. Although this survey has not been employed in Romania before, it was successfully adapted in extensive studies conducted in Australia (Morrison, Duncan, Sherley, & Parton, 2013), some countries in Asia (Leiserowitz, Thaker, Feinberg, & Cooper, 2013; Detenber, Rosenthal, Liao, & Ho, 2016), and Germany (Metag, Füchslin, & Schäfer, 2017).

## Methodology

The relation between sustainability and individuals' social and economic values was previously researched (Marcus, MacDonald, & Sulsky, 2015). However, in Romania, this study represents the first attempt to establish a correlation between the various components of sustainability and individual cultural values, operationalized according to Hofstede's model. Therefore, we proposed the following exploratory questions: "To what extent can the individual cultural values of individuals belonging to a particular culture be linked to their attitude towards sustainability?" and "Which specific cultural values correlate with which sustainability aspects?"

Accordingly, our research tool comprised three sections, the *Cultural Values Scale* (CVSCALE) (Yoo, Donthu, & Lenartowicz, 2011) and the *Global Warming's Six Americas* (GWSA) survey (Maibach et al., 2011) and socio-demographic questions. The GWSA scale version used in this research consists of 15 items (the short version) and has 4 categories: beliefs, issue involvement, behavior, and preferred societal response. One of the adaptations of the questionnaire for the Romanian respondents included replacing the term *global warming* from the initial questionnaire with the more widely recognized and used syntax *climate change*. We considered this to be a necessary and possible translation since none of the specific methodological or weather-related scientific knowledge was used in the questionnaire, rather the concept as a whole and it is now the term used in the public communication in Romania, related to man-induced changes in the climate of Earth. By running a script provided by the authors (Maibach et al., 2011), the scale issues a segmentation of the respondents in 6

categories: 'Alarmed, Concerned, Cautious, Disengaged, Doubtful, Dismissive'. Each category represents a type of attitude a specific category of the public has towards climate change in our case.

The *Alarmed* are sure that climate change is occurring and represent the most involved segment in this issue. They see it as an urgent and serious threat for themselves, their families, and future generations. The *Concerned* hold the same beliefs but are less likely to take action at a personal level. Nonetheless, they show great support for environmental policies. The *Cautious*, however, don't think that individuals and society need to address climate change and perceive it as a problem to be solved in the distant future. The *Disengaged* are not preoccupied with climate change at all and hold no opinions on this subject. The *Doubtful* segment includes individuals that hold different opinions on the occurrence of climate change. However, most suggest it is due to the natural changes in the environment, and none of them believe this issue will ever threaten humankind. The *Dismissive* reject the idea of climate change, and oftentimes advocate against mitigation activities and policies (Maibach, Leiserowitz, Roser-Renouf, & Mertz, 2011).

Running the script has provided in case of each respondent category a composite score and based on the values of the highest score per category, each respondent was then placed in a segment where his/her opinions had the highest number. As a result, out of our 295 respondents, we had finally 150 Alarmed, 118 Concerned, 17 Cautious, 4 Disengaged, 5 Doubtful and 1 Dismissive. In fact, all our respondents scored in all segments, but the highest score they had was in the relevant category, where they have been placed at the end, by the script.

In terms of primary data analysis, we had the following results: Alarmed ( $M = 162.36$ ,  $SD = 35.84$ ), Concerned ( $M = 162.7$ ,  $SD = 30.14$ ), Cautious ( $M = 151.73$ ,  $SD = 24.3$ ), Disengaged ( $M = 145.12$ ,  $SD = 25.2$ ), Doubtful ( $M = 130.24$ ,  $SD = 19.88$ ), Dismissive ( $M = 93.4$ ,  $SD = 17.87$ ). The data was normally distributed.

The CVSCALE has five subscales, each representing the corresponding cultural dimension: Power distance (5 items), Uncertainty avoidance (5 items), Individualism versus collectivism (6 items), Short-term versus long-term orientation (6 items), Masculinity versus femininity (4 items). The answers are measured on a five-point Likert scale. Reliability analysis on 295 respondents indicated acceptable Cronbach's Alpha values on each subscale of the CVSCALE. Data collected in other national cultures (Yoo, Donthu, & Lenartowicz, 2011) displayed different values in Brazil ( $N = 149$ ) and Poland ( $N = 300$ ). Cronbach's Alpha values measured in the present study are as follows:  $\alpha = .68$  for Power distance ( $\alpha = .79$  in Brazil,  $\alpha = .84$  in Poland);  $\alpha = .82$  for Uncertainty avoidance ( $\alpha = .70$  in Brazil,  $\alpha = .76$  in Poland);  $\alpha = .86$  for Individualism versus collectivism ( $\alpha = .76$  in Brazil,  $\alpha = .85$  in Poland);  $\alpha = .82$  for Short-term versus long-term orientation ( $\alpha = .72$  in Brazil,  $\alpha = .78$  in Poland); and  $\alpha = .66$  for Masculinity versus femininity ( $\alpha = .71$  in Brazil and Poland).

The survey was shared online in late August 2021. The total number of respondents was 295, of which 177 (60%) are women, and 118 (40%) are men, aged between 18 and 72 years ( $M = 43.2$ ,  $SD = 11.3$ ). Most live in urban areas (84.1%), have at least a

university degree (83.4%), and consider themselves Christians, either practicing (28.1%) or non-practicing (46.1%).

We looked at potential relations between the dimensions of personal culture and each type of attitude towards climate change. As a result, we have observed several negative low correlations between power distance and the scores of alarmism ( $r=-.167, p<.01$ ), concern ( $r=-.163, p<.01$ ), and disengagement ( $r=-.167, p<.01$ ). It means that the higher the scores of power distance the lower the scores of all segments of concern for climate change, except for doubtful and dismissive for which no significant relationship exists. The same type of relationship applies to femininity and masculinity and alarmism ( $r=-.114, p<.05$ ), a low correlation, meaning that the higher the masculinity level the lower the level of alarmism. These have been the only negative significant correlations, the rest of the correlations have been positive across the board, with moderate levels in the case of individualism vs collectivism and alarmed ( $r=.297, p<.01$ ), concerned ( $r=.286, p<.01$ ), cautious ( $r=.262, p<.01$ ), disengaged ( $r=.265, p<.01$ ) and doubtful ( $r=.203, p<.01$ ). Moderate correlations have been found between short and long-term vision and alarmed ( $r=.211, p<.01$ ) as well as low correlations with all other segments except for dismissive ( $r=.054, p>.05$ ). Same moderate correlations have been found between uncertainty avoidance and alarmed ( $r=.204, p<.01$ ) and concerned ( $r=.203, p<.01$ ), low correlations with cautious, disengaged, and doubtful ( $r=.138, p<.05$ ) and no correlation with the dismissive ( $r=.055, p>.05$ ).

Demographics like gender, level of education, income level, and the location respondents are coming from (rural or urban) did not determine differences in any segment. The same was the case with age, which did not correlate with any segment. Religious convictions have not determined differences in attitudes related to climate change in our group's segments. In a previous study on the same respondents, while analyzing socio-demographic variables and the personal cultural dimensions, we have discovered significant differences between men and women regarding power distance, individualism, and long vs short-term orientation. The age also showed a low correlation with long vs short term orientation (Crisan & Iacoboaia, 2021).

Our results confirm, as regards power distance, the results of Tata & Prasad (2015) and Cox et al. (2011). In terms of uncertainty avoidance, our results show at a personal level a relationship with a proactive attitude towards climate change, while the studies of Cox et al. (2011), Esteban et al. (2017), Kucharska and Kowalczyk (2018) failed to demonstrate any relationship between uncertainty avoidance and CSR practices at the organizational level. This could suggest that personal rather than organizational values could influence perceiving uncertainty related to the future. Our research also suggests that the higher the level of collectivism, the higher the alarmist attitude, which is in contradiction with the studies of Horak et al. (2018) and Zheng et al. (2021). It may be determined by the fact that we measure collectivism as an individual trait, not at the society level, and as such people think about the welfare of others, rather than only their own. Finally, our result as regards the feminine vs masculine personal values are confirming the research studies of Park et al. (2007) and Tata & Prasad (2015) who conclude that feminine cultures tend to display a greater propensity for environmental well-being and life quality.

### Conclusions

Our research study suggests that the more personal cultural values are oriented towards an inclusive, low power distance, feminine, long-term vision, and more certainty avoidance, the more people will show attitudes of awareness on climate change and the need to do something about it. We cannot establish causality or any connections with socio-demographic data for the attitudes of different segments towards climate change, but it looks from our data, and in the case of our respondents, that the personal cultural values influence behaviors in this direction. They are not a determinant, though. More research is needed and on a representative sample to understand how better to address communication campaigns, CSR activities in organizations, or public policies at the governmental level, to ensure a sustainable future for future generations.

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