CIGS The Canon Institute for Global Studies

CIGS Working Paper Series No. 26-003E

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Survival and Distributive Justice across Cultures

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February 9, 2026

General Incorporated Foundation
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Two Faces of Intergenerational Justice: Survival and Distributive Justice across Cultures*

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Abstract

Implementing a sustainable society within Earth system boundaries requires not only normatively sound principles but also reasons that citizens find persuasive. This study examines the public acceptance of intergenerational ethics and their persuasiveness in policy contexts across cultures, using twelve moral principles that integrate Western political philosophy and moral psychology. Drawing on survey data from 3,619 respondents in the United States, France, Japan, China, India, the United Arab Emirates, and South Africa, we analyze the structure of intergenerational ethics using factor analysis and multidimensional scaling (MDS). We show that intergenerational ethics are better organized into two themes—*Survival Justice* and *Distributive Justice*—than along the individualizing/binding distinction of Moral Foundations Theory. Survival Justice, oriented toward harm avoidance and environmental preservation, constitutes a cross-culturally robust core, whereas Distributive Justice, concerning intergenerational fairness and its institutional foundations, forms a context-dependent periphery. While both themes are strongly endorsed in emerging economies, mature societies—most notably Japan—exhibit a pronounced specialization toward Survival Justice alongside a relative decline in Distributive Justice. In policy contexts, Survival Justice proves persuasive not only for climate change and advanced technologies but also for fiscal issues; however, support for moral principles does not automatically translate into acceptance of concrete policy instruments, underscoring the need for a two-step strategy that combines a shared civic perspective with transitional measures and explicit arrangements for burden sharing.

Key words: Intergenerational justice; intergenerational ethics; moral principles; Survival Justice; Distributive Justice; public policy.

JEL Classification: D63, Q56.

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* We are grateful to Tatsuya Kameda, Yoshio Kamijo, Masao Ogaki and Motohiro Sato for their helpful comments and discussions.

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1 Introduction

In the pursuit of a sustainable society within Earth system boundaries, Gupta et al. (2023) propose the concept of Earth System Justice. However, translating demanding normative principles into concrete policy measures often generates friction arising from cultural backgrounds and value systems across societies. Successfully implementing Earth System Justice therefore requires a clear understanding of how people reason about intergenerational fairness and how intergenerational justice is received by the public.

Previous studies have largely relied on Western normative political philosophy or on the unilateral application of moral psychology and have thus lacked a genuinely cross-cultural perspective necessary for global consensus building. This study addresses this gap by organizing intergenerational ethics into twelve moral principles and examining them through a large-scale cross-national survey conducted in seven countries. By empirically bridging the gap between normative "ought" theories and the values people actually hold, we aim to clarify the channels through which moral persuasion can become effective in advancing a sustainable society.

Specifically, this study seeks to answer three questions. First, what universal cognitive structures underlie intergenerational ethics? Second, within these structures, how do acceptance patterns differ across societies at different stages of development and among individuals with different attributes? Third, how does the persuasiveness of moral principles vary across policy domains—such as climate change, fiscal policy, and advanced technologies—and what strategies are effective in translating support for principles into acceptance of concrete policy instruments, including taxation and regulation?

The main findings of this study are threefold. First, intergenerational ethics are better organized into two themes—*Survival Justice* and *Distributive Justice*—rather than along the individualizing/binding distinction emphasized in Moral Foundations Theory. Second, Survival Justice emerges as a cross-culturally robust core with consistently high support, whereas Distributive Justice appears as a context-dependent periphery whose salience not only varies across societies but also tends to recede as societies mature, while Survival Justice becomes increasingly foregrounded. Third, while Survival Justice is broadly persuasive across policy domains, we identify a persistent gap between endorsement of moral principles and acceptance of concrete policy instruments, underscoring the need for a two-step strategy for policy implementation.

The remainder of this paper is organized as follows. Section 2 reviews the literature on intergenerational ethics and moral psychology and presents the theoretical framework and survey design. Section 3 reports the results of factor analysis and multidimensional scaling (MDS), providing empirical evidence on the structure of intergenerational ethics, cross-cultural differences, and policy persuasiveness. Section 4 discusses the theoretical and policy implications of the findings, and Section 5 concludes by outlining directions for future research.

2 Literature and Framework

2.1 Previous Literature

Discussions of intergenerational justice have long been led by normative political philosophy in the Western tradition. Theories such as Rawls's just savings principle and utilitarianism have offered sophisticated accounts of how resources and burdens ought to be distributed across generations (Tremmel, 2006; Gosseries & Meyer, 2009). However, empirical evidence on the extent to which these normative theories are accepted by ordinary citizens remains limited.

Within psychology, the most influential framework for measuring moral intuitions in recent years has been Moral Foundations Theory (MFT) (Haidt & Joseph, 2004; Haidt, 2012; Atari et al., 2023). MFT classifies human morality into six foundations—care, equality, proportionality, loyalty, authority, and purity—and further organizes them into two higher-order dimensions: individualizing foundations, which emphasize individual rights and welfare, and binding foundations, which emphasize group cohesion and social order (Graham et al., 2011). This individualizing/binding distinction has proven effective in explaining ideological polarization, particularly in Western democracies such as the United States. Liberals tend to strongly endorse individualizing foundations, whereas conservatives tend to endorse both individualizing and binding foundations more evenly (Graham et al., 2009). Building on these insights, applied studies have suggested that climate policy persuasion should appeal to harm avoidance for liberals and to purity or sanctity for conservatives (Feinberg & Willer, 2013).

However, research based on Moral Foundations Theory faces two major limitations in the context of intergenerational ethics. First, its theoretical focus lies primarily on cooperation and conflict within contemporaneous social groups—that is, horizontal relationships among people living at the same time—rather than on responsibilities toward future generations separated by time. In intergenerational contexts, conventional oppositions such as liberal versus conservative or individualizing versus binding may not apply straightforwardly. Second, existing studies suffer from substantial geographical and cultural bias. Much of the empirical evidence is drawn from so-called WEIRD societies (Western, Educated, Industrialized, Rich, and Democratic), especially the United States, thereby limiting claims of cross-cultural universality (Henrich et al., 2010). With few exceptions (e.g., Nisbett & Spaiser, 2023), global comparative analyses remain scarce.

A growing number of studies have begun to empirically examine preferences related specifically to intergenerational ethics (Zhang, 2018; Hurlstone et al., 2020; Inoue et al., 2021; Hiromitsu, 2024a). Nevertheless, these studies typically focus on a limited set of moral principles or are confined to single-country settings, and thus fall short of providing a comprehensive account of the structure of intergenerational ethics. As a result, a substantial

gap remains between abstract normative theories of justice and empirical knowledge about the values people actually hold. Bridging this gap requires a reciprocal process: conducting broad empirical investigations that can support normative reasoning, and reorganizing empirical findings within a coherent theoretical framework.

2.2 Analytical Framework: Twelve Moral Principles

In selecting the moral principles used in this study, we adopt an approach that builds on normative research in Western political philosophy while being complemented by empirical insights from moral psychology. We first extract key normative principles from standard frameworks in political philosophy (Kymlicka, 2002) and from major debates in intergenerational ethics (Parfit, 1984; Gosseries, 2009; Scheffler, 2013). Because principles derived from Western philosophy may reflect culturally specific values and may not adequately capture non-Western moral traditions, we supplement them with insights from Moral Foundations Theory. In particular, we formalize principles associated with binding foundations—such as authority and purity—that have been emphasized in non-Western societies and integrate them into the list.

The resulting twelve moral principles are presented in Table 1. In the table, principles are classified along two conceptual axes. First, following traditional distinctions in moral philosophy (Kant, 2012), principles are categorized as *negative duties*, which require avoiding harm to future generations, or *positive duties*, which require providing benefits such as happiness or resources. Second, drawing on Moral Foundations Theory and its associated moral dictionary (Graham et al., 2009), principles are classified according to whether they primarily reflect individualizing or binding foundations. These twelve principles are not intended to exhaustively cover all possible combinations of these axes; rather, they represent major normative concerns that are particularly salient in the context of intergenerational ethics, identified through a synthesis of philosophical theory and psychological evidence.

Table 1.

2.3 Hypotheses

Based on the theoretical background and prior literature, we formulate the following hypotheses. Because empirical research on the public acceptance of intergenerational ethics remains limited, hypothesis construction necessarily relies on insights from comparative cultural psychology and Moral Foundations Theory. Examining where these psychological predictions align with or diverge from observed patterns is a key contribution of this study.

First, we consider the cognitive structure underlying intergenerational ethics. Moral psychology suggests that moral foundations are not independent but are organized into correlated and hierarchical structures. Within Moral Foundations Theory, the individualizing/binding two-dimensional structure has been repeatedly identified (Graham et

al., 2011). It is therefore plausible that the twelve principles examined here also exhibit latent structure rather than existing as an unordered set.

H1 (Structural hypothesis):

The twelve moral principles form at least a two-factor structure corresponding to individualizing and binding foundations.

Second, we examine cultural and individual differences in the acceptance of these principles. Prior research based on Moral Foundations Theory suggests that Western societies tend to emphasize individualizing foundations, whereas non-Western societies place greater weight on binding foundations. With respect to individual attributes, prior research suggests that, with increasing age, individuals tend to rely more heavily on tradition, social order, and religious norms (Baltes & Smith, 2003). Consistent with this view, studies based on Moral Foundations Theory show that support for binding foundations is higher not only among older individuals but also among those with conservative ideological orientations (Graham et al., 2009; Wolsko et al., 2016). On the basis of these findings, we propose the following Hypothesis 2 (H2).

H2 (Cultural and individual differences):

H2a (Cultural differences):

In advanced economies (the United States, France, and Japan), principles related to individualizing foundations receive higher evaluations, whereas in emerging economies (China, India, the UAE, and South Africa), principles related to binding foundations receive higher evaluations.

H2b (Individual attributes):

Older individuals and conservatives assign higher evaluations to principles related to binding foundations.

H2a is derived from the individualizing/binding distinction in Moral Foundations Theory and is included here as a benchmark. Given that intergenerational contexts differ from the within-generation cooperation problems for which the framework was originally developed, we treat H2a as a tentative expectation rather than a strong prediction.

Third, we examine the persuasiveness of moral principles across policy domains. A key question is whether abstract support for moral principles translates into support for concrete policies. Previous studies show that policy support depends on moral framing; for example, appealing to purity can increase conservatives' support for environmental protection (Feinberg & Willer, 2013). We hypothesize that different types of policy issues activate different sets of moral principles. Climate change and advanced technology regulation are closely related to human survival and are expected to benefit from defensive, system-preserving moral appeals. Fiscal policy, by contrast, concerns resource distribution and is

expected to respond more strongly to principles of distributive fairness.

H3 (Policy-domain hypotheses):

H3a (Survival-related issues):

In climate change and advanced technology contexts, binding-oriented principles related to system preservation—such as purity and the survival of humanity—exhibit high persuasiveness.

H3b (Distributive issues):

In fiscal policy contexts, individualizing principles related to distributive fairness—such as equality and sufficiency—exhibit high persuasiveness.

2.4 Survey Design

Survey Overview and Participants

The survey was conducted online through Centiment between November 2024 and January 2025 in seven countries: the United States, France, Japan, China, India, the United Arab Emirates (UAE), and South Africa. Questionnaires were prepared in the official language(s) of each country (see Supplementary Table S1). Respondents aged 16 and over were recruited, and responses with extremely short completion times (less than three minutes) or duplicate IP addresses were excluded. The final sample consists of 3,619 valid responses (approximately 500 per country; see Supplementary Table S2 for details). Sampling aimed to approximate national population distributions by age and residential area, but due to the nature of online surveys, respondents in emerging economies are skewed toward urban and younger populations. In the analyses below, age and urban residence are controlled for, and we confirm that the main cross-national results cannot be explained by compositional differences. All participants were informed of the purpose of the study and provided informed consent prior to participation.

Structure of the Questionnaire

In Survey 1 (acceptance of moral principles), respondents evaluated the twelve moral principles presented in random order using a seven-point Likert scale (0–6). Principle labels were omitted, and each principle was accompanied by a plain-language explanatory statement to facilitate understanding.

In Survey 2 (policy persuasiveness), respondents were presented with three policy scenarios: climate change mitigation (tax increases), fiscal consolidation (tax increases), and risk management of advanced technologies such as AI (development bans). Respondents were asked to select all moral principles they found persuasive when the government justified each policy using those principles, with multiple selections allowed and a “none” option included. The order of scenarios and principles was randomized at the individual level. Respondents were also asked to provide open-ended explanations for their choices.

Finally, respondents were invited to freely express their views on intergenerational issues. Demographic information was collected, including gender, age, education, residential area, parental status, political ideology (framed as social views in China), and race/ethnicity (United States and South Africa only).

3 Results

3.1 Overall Patterns in the Acceptance of Moral Principles

This section first presents descriptive statistics on the overall patterns of acceptance of the moral principles. We then examine the cognitive structure underlying intergenerational ethics using exploratory factor analysis and multidimensional scaling (MDS) (H1). Next, based on composite indices derived from this structure, we analyze cross-national differences and the effects of individual attributes using regression analysis (H2). Finally, we examine which moral principles are persuasive across policy domains—climate change, fiscal policy, and advanced technologies (H3).

Table 2 ranks the moral principles according to their mean evaluation scores in the pooled global sample as well as within each country. The rankings based on mean scores were consistent with those obtained using majority judgment (reported in Supplementary Table S3), and the discussion below therefore relies on mean-based rankings. The global sample should be interpreted as reflecting the average tendency across the seven countries.

Table 2.

Overall, evaluation scores are higher in emerging economies than in advanced economies. With respect to H2a (cultural differences), the results were partly consistent with the prediction that binding foundations are more strongly endorsed in emerging economies. However, even in advanced economies, binding-related principles such as Purity and Survival of the World are ranked above individualizing principles such as Egalitarianism. As a result, H2a is not supported in its original form. This pattern suggests that the acceptance structure of intergenerational ethics cannot be fully captured by the conventional individualizing/binding dichotomy, motivating the more detailed structural analysis that follows.

3.2 Cognitive Structure of Intergenerational Ethics: Survival Justice and Distributive Justice

To investigate the cognitive structure underlying moral principles, we combine exploratory factor analysis with multidimensional scaling. Factor analysis captures within-individual covariance across principles; however, in the present data, responses were dominated by a strong general factor—reflecting the tendency to evaluate most principles as "good"—which

obscures relative differences in preference. For this reason, we complement factor analysis with MDS, which visualizes distances between countries based on relative preference profiles after demeaning country-level means.

Exploratory factor analysis of the pooled global sample does not yield a stable multifactor structure. We therefore conducted separate analyses by country and age group, identifying factors that satisfy standard criteria (eigenvalues greater than one and Cronbach's alpha exceeding 0.7). The results, reported in Supplementary Table S4, reveal two recurring factors that can be interpreted as Survival Justice and Distributive Justice. Supplementary Table S5 reports the frequency with which each moral principle loads onto these two factors. In the Survival Justice factor, principles such as Survival of the World and the Harm Principle appear most frequently, whereas in the Distributive Justice factor, principles such as Egalitarianism, Authority, and Sufficientarianism are prominent. However, these patterns are not consistently identified at the level of the pooled sample.

For this reason, to assess the structure among moral principles more robustly, we conducted multidimensional scaling (MDS) based on the similarity of country-level response patterns (Figure 1). This analysis computes and maps distances between countries according to the similarity of their response profiles, while the substantive interpretation of the resulting dimensions is left to theoretical interpretation. Supplementary Table S6 reports the correlations between the twelve moral principles and the first (horizontal) and second (vertical) dimensions.

Figure 1.

Examining the configuration in Figure 1, the first dimension can be interpreted as capturing a broad cultural distance that separates countries positioned on the positive side—such as the United States, France, and China, which are closer to Western societies—from those on the negative side, including South and West Asian countries. The relative proximity of urban Chinese respondents to Western countries has also been repeatedly documented in studies based on Moral Foundations Theory (Graham et al., 2011; Atari et al., 2023).

However, the more substantively informative dimension in the context of this study is the second dimension. Focusing on this dimension reveals two underlying themes that differentiate countries, and these themes are consistent with the two themes partially suggested by the factor analysis. Specifically, Japan, located on the positive end of the second dimension, shows relatively strong support for the Harm Principle (HP), the Survival of the World (SUV), and Purity (PUR). By contrast, countries positioned on the negative end—such as India and the UAE—exhibit relatively strong support for these principles as well as for Utilitarianism (UT) and Authority (AUT).

To interpret the second MDS dimension, we examined its correlations with the twelve moral principles (Supplementary Table S6). Principles that correlate positively with this dimension—Purity, Survival of the World, the Harm Principle, and Indirect Reciprocity—

cluster around concerns with preventing irreversible harm and preserving the conditions for collective continuity. We refer to this cluster as *Survival Justice*. By contrast, principles that correlate negatively—Utilitarianism, Egalitarianism, Authority, Sufficientarianism, and Recognition—cluster around distributive rules, that is, how benefits and burdens should be allocated across generations, as well as the institutional and social conditions that legitimize and sustain such rules (e.g., legitimacy and recognition). We refer to this cluster as *Distributive Justice*. Proportionality, Communitarianism, and Altruism exhibit weaker and/or mixed associations with the second dimension and also load across factors. This pattern suggests that they function as *bridging principles* that can be recruited in support of either theme, depending on context. For transparency, we retain their empirical placement in the theme scores reported in Table S6, while interpreting them as conceptually bridging rather than theme-exclusive. Throughout the paper, we use *Distributive Justice* in a broad sense: it encompasses not only distributive principles (equality, utility, and sufficiency) but also the institutional legitimacy and social recognition that make a distributive arrangement a shared social rule, as captured here by Authority and Recognition.

These results support the view that intergenerational ethics are structured around two distinct but related themes. Importantly, this structure does not align with the individualizing/binding framework of Moral Foundations Theory, indicating the presence of a cognitive framework specific to intergenerational issues. Figure 2 illustrates the relationship between Survival Justice, Distributive Justice, and existing frameworks.

Figure 2.

The internal consistency of the two composite indices is high across countries, with Cronbach's alpha ranging from 0.72 to 0.90 for Survival Justice and from 0.73 to 0.87 for Distributive Justice. Average correlations among principles are positive within each theme ($r = 0.30$) but negative across themes ($r = -0.33$), supporting the distinctiveness of the two themes. In subsequent analyses, we use the average evaluation scores of principles within each theme as composite variables.

3.3 Cultural and Individual Determinants

We next examine how the two ethical dimensions—Survival Justice and Distributive Justice—are associated with cultural context and individual attributes. Using responses from Survey 1, we estimate regression models in which the composite indices serve as dependent variables. Because evaluations are bounded between 0 and 6, Tobit models are employed. Independent variables include country dummies (with the United States as the reference category) and individual attributes such as age, gender, ideology, education, and urban residence.

Table 3.

With respect to cultural differences (H2a), emerging economies—India, the UAE, and South Africa—exhibited significantly higher coefficients for both Survival Justice and Distributive Justice relative to the United States. In China, coefficients are positive but not statistically significant. By contrast, France shows a significantly lower evaluation of Distributive Justice, and Japan shows significantly lower evaluations of both themes. In Japan, evaluations of Distributive Justice are particularly low: compared with the United States, the score for Survival Justice is lower by approximately 0.23 points, whereas the score for Distributive Justice is lower by about 0.49 points.

These results suggest that in emerging economies, ethical concerns related to both survival and distribution are simultaneously salient, reflecting strong demand for both social continuity and institutional development. In contrast, in mature societies—most notably Japan—ethical concern appears increasingly specialized toward Survival Justice, with reduced emphasis on Distributive Justice. Importantly, this pattern persisted after controlling for age, education, and urban residence, indicating that it cannot be attributed solely to population composition. Supplementary analyses based on specialization scores—the difference between Survival Justice and Distributive Justice—confirm that Japan, followed by France, exhibits significantly higher specialization even after age standardization. Moreover, while income is not directly observed, we control for education as a proxy variable, and the main conclusions are preserved.

Regarding individual attributes (H2b), age is positively associated with both Survival Justice and Distributive Justice, indicating that older individuals express higher overall concern for intergenerational ethics rather than greater reliance on a specific moral foundation. Ideological orientation shows only a limited association: more conservative respondents exhibit slightly lower evaluations of Survival Justice, but ideology is not significantly related to Distributive Justice. Even when the analysis is restricted to the United States, no significant association with ideology is observed (Table S7), a result that is consistent with analyses of respondents' open-ended responses reported in Supplementary Table S17. These results contrast with predictions derived from Moral Foundations Theory and suggest that ideological divides play a less central role in intergenerational contexts. Among other individual attributes, urban residence and having children are also found to increase overall evaluations of intergenerational ethics, which constitutes an additional noteworthy finding.

3.4 Persuasiveness Across Policy Domains

We next examine which moral principles are persuasive in specific policy domains—climate change, fiscal policy, and advanced technologies—using responses from Survey 2 (testing H3). This study does not take a particular position on the desirability of the policies

themselves; rather, it focuses on identifying which moral arguments function as effective channels for policy acceptance. Table 4 reports, for the global sample, the proportions of respondents who selected each principle as persuasive for each policy domain. In the columns labeled Survival Justice and Distributive Justice, we aggregate the average selection rates of principles belonging to each theme. Country-specific patterns are reported in Supplementary Table S11, and regression results on cultural and individual determinants are presented in Supplementary Table S12.

For survival-related issues—namely climate change and regulation of advanced technologies—principles associated with Survival Justice, such as the Harm Principle (HP) and Survival of the World (SUV), exhibit greater persuasiveness than those associated with Distributive Justice, providing broad support for Hypothesis H3a. At the same time, we find that the fit between principles and policy domains varies: while Purity (PUR) is highly persuasive in the context of climate change, its persuasiveness is more moderate in the context of technology regulation.

Fiscal policy presents a more nuanced pattern. Although fiscal issues concern resource distribution, the most persuasive principles are again those associated with Survival Justice, such as the Harm Principle (HP) and Proportionality (PRO). This finding runs counter to H3b and suggests that citizens frame fiscal issues less in terms of distributive fairness and more in terms of avoiding social breakdown. Merely appealing to fairness in distribution appears insufficient to generate support for tax increases; instead, fiscal persuasion is more effective when the objective of avoiding systemic breakdown is shared, and the associated burdens are explained as being allocated according to benefits received, ability to pay, and responsibility (proportionality).

Table 4.

Finally, it is necessary to consider respondents who selected “no persuasive principle” in Survey 2. In this study, we analyze their open-ended explanations for this choice using a coding scheme to identify the types of arguments expressed. The coding rules were developed through the selection of terms by multiple independent third-party coders and were used to compute the frequency of words belonging to predefined categories (the coding rules and their construction procedures are reported in Supplementary Table S13). Notably, among respondents who selected “no persuasive principle,” references to policy instruments—such as tax increases and bans—are particularly prominent. Table 5 reports the results for the climate change scenario (results for fiscal policy and advanced technologies are presented in Supplementary Table S14). Importantly, many of these respondents assign positive evaluations to the moral principles themselves in Survey 1 (median scores of four or higher; see Supplementary Table S15). Taken together, these findings indicate that the primary barrier to persuasion lies not in a lack of ethical concern, but rather in resistance to specific policy instruments.

Table 5.

4 Discussion

4.1 The Two-Layer Structure of Intergenerational Ethics: Survival Justice as the Core and Distributive Justice as the Periphery

The analyses above demonstrate that intergenerational ethics cannot be adequately characterized by the simple individualizing/binding dichotomy posited by Moral Foundations Theory. Rather, both multidimensional scaling and regression analyses consistently support a two-layer structure in which Survival Justice constitutes a universal core, while Distributive Justice forms a context-dependent periphery.

As shown in Table 6, moral principles associated with Survival Justice receive not only high evaluations on average but also remarkably consistent evaluations across countries, exhibiting low cross-national variance. By contrast, principles associated with Distributive Justice display substantially greater variation, with notably lower scores in countries such as Japan and France. Survival Justice reflects a defensive moral orientation that prioritizes harm avoidance and the preservation of natural and social systems. Across all surveyed countries, there is broad agreement on the importance of preventing irreversible damage and maintaining the conditions necessary for human and civilizational continuity. Few moral intuitions are as universally shared as the imperatives “not to destroy” and “not to pollute.” Distributive Justice, in contrast, concerns fairness in the allocation of benefits and burdens across generations, as well as the institutional arrangements required to legitimize and sustain such allocation. Support for this set of principles is far less uniform. This ethical layer tends to gain salience in periods when societies seek growth and the distribution of its fruits, but it appears to lose traction as societies mature and confront the limits of growth and increasing structural complexity.

Table 6.

4.2 Developmental Stage and the Transformation of Ethical Priorities

The dynamics between the core and the periphery provide a clear account of cross-national differences in ethical preferences across stages of development. In emerging economies, both Survival Justice and Distributive Justice receive strong support. This pattern can be interpreted as a situation in which two engines operate simultaneously: the establishment and intergenerational transmission of the foundations of survival, and the pursuit, allocation, and governance of economic prosperity and rights. By contrast, Japan—and, to a lesser extent, France—serve as leading examples of advanced social maturation (as shown in Supplementary Table S16, both countries have relatively high median ages and low projected

population growth rates). In these countries, specialization toward Survival Justice is particularly pronounced. Importantly, this specialization is not simply a byproduct of a higher share of older individuals; it persists even after controlling for age. In mature and shrinking societies, people across generations—including younger cohorts—appear to share social temporal conditions in which judgments are formed with an emphasis on avoiding systemic breakdown and ensuring sustainability, rather than on future expansion. As a result, the theme of Survival Justice becomes salient across age groups.

The distribution of vocabulary in open-ended responses was consistent with this pattern. As shown in Table 7, references to "well-being/opportunity" were more frequent in emerging economies—14.7% in China and 11.5% in South Africa—than in advanced economies (6.3% in the United States and 7.6% in Japan). In addition, references to "care/protection" in China (26.3%) and to "justice/responsibility" in South Africa (9.5%) were particularly salient, lending lexical support to the quantitative finding that Distributive Justice is more readily activated in emerging economies. Mentions of "technology" were also relatively frequent in the UAE (9.9%) and India (8.2%), indicating that expectations regarding social development and technological innovation are strongly reflected in ethical reasoning (Supplementary Table S17 reports additional analyses of open-ended responses by attributes other than country).

Table 7.

4.3 Policy Implications: Bridging Citizens and Everyday Economic Actors

Finally, we consider the gap between moral principles and policy instruments in the context of persuasion. This study shows that people tend to respond more readily to themes of avoiding systemic breakdown—associated with Survival Justice—not only in issues directly related to survival, such as climate change and advanced technologies, but even in fiscal policy, which is ostensibly a distributive issue. Employing such morally resonant arguments as entry points for persuasion thus constitutes one viable pathway toward policy implementation.

However, presenting moral principles alone is not a sufficient condition for policy acceptance. Analysis of respondents who selected "no persuasive principle" suggests that resistance often arises not from a lack of ethical concern, but from opposition to specific policy instruments, such as carbon taxes, tax increases for fiscal consolidation, or bans on AI development. Underlying this pattern is the coexistence of two aspects within the same individuals: as citizens who seek justice and as everyday economic actors pursuing their livelihoods. Prior research similarly shows that when fiscal policy options—such as postponing burdens versus ensuring intergenerational fairness—are presented, preferences for postponement increase as the concrete content of burdens becomes more explicit

(Hiromitsu, 2019, 2024b).

From this perspective, implementing intergenerational justice requires a two-step strategy. First, the principles of Survival Justice should be articulated as shared goals to activate civic concern. Second, rather than relying solely on citizens' ethical commitments, policymakers should simultaneously present transitional measures—such as phased implementation and compensatory policies—together with explicit burden-sharing arrangements, thereby connecting resistance at the level of everyday economic interests to feasible and concrete agreement.

5 Conclusion

This study provides a cross-cultural examination of the acceptance structure of intergenerational ethics and demonstrates that it exhibits a two-layer configuration, with Survival Justice forming a stable core and Distributive Justice constituting a context-dependent periphery. This finding offers a useful perspective on the particular difficulties of intergenerational issues in mature societies. In such societies, public attention tends to converge on defensive motivations centered on avoiding systemic breakdown. The moral vocabulary of intergenerational justice may therefore lack sufficient breadth, and appeals framed in terms of justice may fail to resonate with citizens. Stagnation in consensus building on intergenerational issues should not be interpreted simply as a deficiency in civic ethics. It may also reflect a mismatch between the moral frames employed and the concerns that are most salient to the public.

With respect to policy implementation, our analysis highlights a clear gap between citizens' acceptance of moral principles and their rejection of concrete policy instruments. Securing abstract agreement on principles alone is insufficient; rather, approaches that bridge citizens' civic mode and their livelihood mode (i.e., their concerns as everyday economic actors) are essential. In applying the proposed two-step strategy, it is important not only to rely on policy engineering tools such as nudges, but also to deepen civic understanding of policies through deliberative processes. For example, the *Future Design* approach proposes a hybrid methodology that combines engineering techniques with democratic deliberation by engaging participants in discussions with *hypothetical future generations* (Saijo, 2025), and its further development and implementation hold considerable promise.

This study nevertheless has limitations and leaves several avenues for future research. First, causal relationships remain to be identified. The primary aim of this study was to clarify what people perceive as morally right in intergenerational contexts. To strengthen policy relevance, future research should assess the extent to which moral principles translate into actual behavior, for example through experimental designs involving incentives. Second, further theoretical development of intergenerational ethics is needed. Compared with well-established debates on individual rights, duties, freedom, and distribution, the concept of Survival Justice remains underexplored. How the preservation and intergenerational

transmission of material resources and social relationships should be incorporated into theories of justice constitutes an important challenge for normative theory.

Despite these remaining challenges, the two-layer model and policy-oriented insights advanced in this study provide a realistic and robust foundation for understanding how consensus on a sustainable future can be built across societies.

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Table 1. List of Moral Principles

This table presents the twelve moral principles used in the analysis, their substantive content, philosophical origins, classification into positive and negative duties, and their position within Moral Foundations Theory.

Moral Principle (Abbrev.)	Description	Philosophical Origin	Positive / Negative Duty	Moral Foundation
Egalitarianism (EG)	People living today should ensure that the level of well-being of future generations is equal to their own.	Kymlicka (2002), Ch. 3, Liberal Equality	Positive	Individualizing (Equality)
Proportionality (PRO)	People living today should ensure that future generations are not disadvantaged without good reason.	Kymlicka (2002), Ch. 3, Liberal Equality	Negative	Individualizing (Proportionality)
Utilitarianism (UT)	People living today should maximize the total sum of well-being of present and future generations.	Kymlicka (2002), Ch. 2, Utilitarianism	Positive	Individualizing (Proportionality)
Sufficientarianism (SUF)	People living today should ensure that future generations enjoy at least a satisfactory level of well-being.	Kymlicka (2002), Ch. 2, Utilitarianism	Positive	Individualizing (Proportionality)
Harm Principle (HP)	People living today should avoid causing harm to future generations through their actions.	Kymlicka (2002), Ch. 9, Care	Negative	Individualizing (Care)
Altruism (ALT)	People living today should care for and promote the well-being of future generations.	Kymlicka (2002), Ch. 9, Care	Positive	Individualizing (Care)
Communitarianism (COM)	Present and future generations are members of the same community, and people today should promote the well-being of future generations as they do their own.	Kymlicka (2002), Ch.6, Communitarianism	Positive	Binding (Loyalty)

Indirect Reciprocity (INR)	People living today have inherited civilization and society from their ancestors and should develop and pass them on to future generations.	Kymlicka (2002), Ch. 6, Communitarianism; Gosseries (2009)	Positive	Binding (Loyalty)
Recognition (REC)	It is important for people living today to be recognized by future generations as having acted rightly and well.	Kymlicka (2002), Ch. 6, Communitarianism	Positive	Binding (Loyalty)
Survival of the World (SUV)	People living today should ensure that humanity and civilization do not cease to exist because of their actions.	Parfit (1984); Scheffler (2013)	Negative	Binding (Purity)
Authority (AUT)	People living today are entrusted by an authoritative entity with the stewardship of nature and society and should manage them so that they flourish over time.	N/A*	Positive	Binding (Authority)
Purity (PUR)	People living today should maintain the natural and social environment in which future generations will live in a clean and orderly state.	N/A*	Positive	Binding (Purity)

* Authority and Purity are drawn from Moral Foundations Theory (Graham et al., 2011). Authority concerns deference to legitimate authority and tradition (e.g., the belief that respect for authority is something all children should learn). Purity concerns sensitivity to violations of standards of purity and decency (or sanctity), including judgments about whether such standards are upheld or violated.

Table 2. Ranking of Moral Principles by Mean Evaluation Score

Rank	Global		USA		France		Japan		China		India		UAE		South Africa	
	principle	score	principle	score	principle	score	principle	score	principle	score	principle	score	principle	score	principle	score
1	PUR	5.21	HP	4.95	PUR	5.18	PUR	4.68	PUR	5.28	PUR	5.39	PUR	5.49	PUR	5.51
2	HP	5.10	SUV	4.91	SUV	5.01	HP	4.65	ALT	5.22	ALT	5.31	HP	5.46	HP	5.46
3	SUV	5.06	ALT	4.88	HP	4.97	SUV	4.60	SUV	5.21	INR	5.29	REC	5.36	ALT	5.46
4	ALT	5.06	PUR	4.87	ALT	4.87	INR	4.54	INR	5.16	COM	5.26	INR	5.34	COM	5.36
5	INR	5.04	INR	4.82	INR	4.86	COM	4.42	COM	5.10	HP	5.22	ALT	5.29	AUT	5.27
6	COM	5.02	COM	4.82	COM	4.84	PRO	4.36	REC	5.06	AUT	5.18	AUT	5.29	SUV	5.27
7	REC	4.91	SUF	4.78	SUF	4.76	ALT	4.32	SUF	4.92	UT	5.17	SUV	5.25	INR	5.25
8	SUF	4.90	EG	4.72	UT	4.66	SUF	4.20	HP	4.90	REC	5.16	COM	5.24	REC	5.20
9	AUT	4.87	REC	4.69	REC	4.65	UT	4.19	UT	4.86	SUV	5.13	SUF	5.21	SUF	5.20
10	UT	4.84	AUT	4.67	AUT	4.60	AUT	4.17	AUT	4.84	SUF	5.13	PRO	5.19	UT	5.07
11	PRO	4.75	UT	4.65	EG	4.60	REC	4.15	EG	4.69	EG	5.06	UT	5.17	PRO	5.02
12	EG	4.71	PRO	4.47	PRO	4.54	EG	3.97	PRO	4.60	PRO	5.02	EG	5.05	EG	4.84
Avg.	4.96		4.77		4.79		4.35		4.99		5.19		5.28		5.24	
Pos-Neg	-0.02		-0.01		-0.06*		-0.25***		0.11***		0.09***		-0.03		-0.01	
Indi-Bind	-0.13***		-0.06**		-0.12***		-0.15***		-0.24***		-0.08***		-0.10***		-0.14***	

Notes:

1. EG = Egalitarianism; PRO = Proportionality; UT = Utilitarianism; SUF = Sufficientarianism; HP = Harm Principle; ALT = Altruism; COM = Communitarianism; INR = Indirect Reciprocity; REC = Recognition; SUV = Survival of the World; AUT = Authority; PUR = Purity.
2. Scores represent mean evaluations on a 0–6 scale. Principles whose scores exceed one standard deviation above the sample mean are highlighted in yellow, whereas those falling more than one standard deviation below the mean are highlighted in blue.
3. The row "Pos–Neg" reports the difference between the mean scores of positive-duty and negative-duty principles.
4. The row "Indi–Bind" reports the difference between the mean scores of individualizing and binding foundations.
5. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Table 3. Cultural and Individual Determinants of Moral Evaluations (Tobit, Global Sample)

	Survival Justice	Distributive Justice
Female (=1)	-0.0629* (-0.0514)	-0.0284 (-0.0242)
Age (years)	0.0047*** (0.0039)	0.0029** (0.0025)
College degree or higher	0.0116 (0.0094)	-0.0188 (-0.0160)
Urban residence	0.1372*** (0.1120)	0.1582*** (0.1349)
Has children	0.0960*** (0.0784)	0.2066*** (0.1762)
Ideology (Conservative=1)	-0.0563* (-0.0459)	-0.0246 (-0.0211)
France	0.0423 (0.0345)	-0.1029* (-0.0878)
Japan	-0.2851*** (-0.2327)	-0.5778*** (-0.4928)
China	0.1778 (0.1451)	0.0904 (0.0771)
India	0.4366*** (0.3564)	0.4355*** (0.3715)
UAE	0.5686*** (0.4641)	0.4891*** (0.4172)
South Africa	0.6062*** (0.4948)	0.4718*** (0.4024)
Constant	4.5823***	4.4971***
Pseudo R2	0.0401	0.0596

Notes:

1. The dependent variables are composite indices of Survival Justice and Distributive Justice.
2. Coefficients are reported with marginal effects in parentheses.
3. Country dummies use the United States as the reference category.
4. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Positive and statistically significant coefficients are highlighted in orange, while negative and statistically significant coefficients are highlighted in blue.

Table 4. Selection Rates of Persuasive Moral Principles by Policy Domain (Global Sample)

	Survival Justice	Distributive Justice	None
Climate	0.310	0.257	0.092
Fiscal	0.287	0.254	0.133
Technology	0.308	0.248	0.112

	EG	PRO	UT	SUF	HP	ALT	COM	INR	REC	SUV	AUT	PUR
Climate	0.230	0.275	0.232	0.251	0.339	0.259	0.266	0.291	0.254	0.322	0.316	0.369
Fiscal	0.235	0.294	0.255	0.272	0.301	0.260	0.273	0.293	0.252	0.281	0.248	0.277
Technology	0.217	0.299	0.236	0.247	0.359	0.252	0.262	0.304	0.256	0.329	0.278	0.295

Notes:
1. Respondents were allowed to select multiple principles; "None" indicates that no principle was found persuasive.
2. EG = Egalitarianism; PRO = Proportionality; UT = Utilitarianism; SUF = Sufficientarianism; HP = Harm Principle; ALT = Altruism; COM = Communitarianism; INR = Indirect Reciprocity; REC = Recognition; SUV = Survival of the World; AUT = Authority; PUR = Purity.
3. The columns labeled Survival Justice and Distributive Justice report the average selection rates of principles belonging to each theme.
4. Cells highlighted indicate values one standard deviation above (yellow) or below (blue) the mean.

Table 5. Reasons for Responses in Survey 2 (Percentage of Respondents Using Terms Corresponding to the Coding Rules)

Climate change

Categories	Persuasive principle(s)	No persuasive principle	Total	Chi-square
Future generation/children	967 (29.4%)	22 (6.6%)	989 (27.3%)	77.734***
Humankind/Earth/survival	750 (22.8%)	29 (8.7%)	779 (21.5%)	34.572***
heritage/sustainability	135 (4.1%)	4 (1.2%)	139 (3.8%)	6.114**
Harm/danger	352 (10.7%)	16 (4.8%)	368 (10.2%)	10.815***
Care/protection	596 (18.1%)	16 (4.8%)	612 (16.9%)	37.093***
Happiness/opportunity	184 (5.6%)	6 (1.8%)	190 (5.3%)	7.965***
Justice/responsibility	207 (6.3%)	10 (3.0%)	217 (6.0%)	5.207**
Clean/dirty	174 (5.3%)	10 (3.0%)	184 (5.1%)	2.797*
Peace/harmony	36 (1.1%)	1 (0.3%)	37 (1.0%)	1.176
Community/family	20 (0.6%)	1 (0.3%)	21 (0.6%)	0.105
Economy	30 (0.9%)	16 (4.8%)	46 (1.3%)	33.625***
Technology	19 (0.6%)	1 (0.3%)	20 (0.6%)	0.068
Tax	85 (2.6%)	60 (18.1%)	145 (4.0%)	184.025***
Government	57 (1.7%)	20 (6.0%)	77(2.1%)	24.630***
Number of respondents	3287 (100.0%)	332 (100.0%)	3619 (100.0%)	

Note 1. Cells with significantly higher proportions in either group are highlighted in orange.
Note 2. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

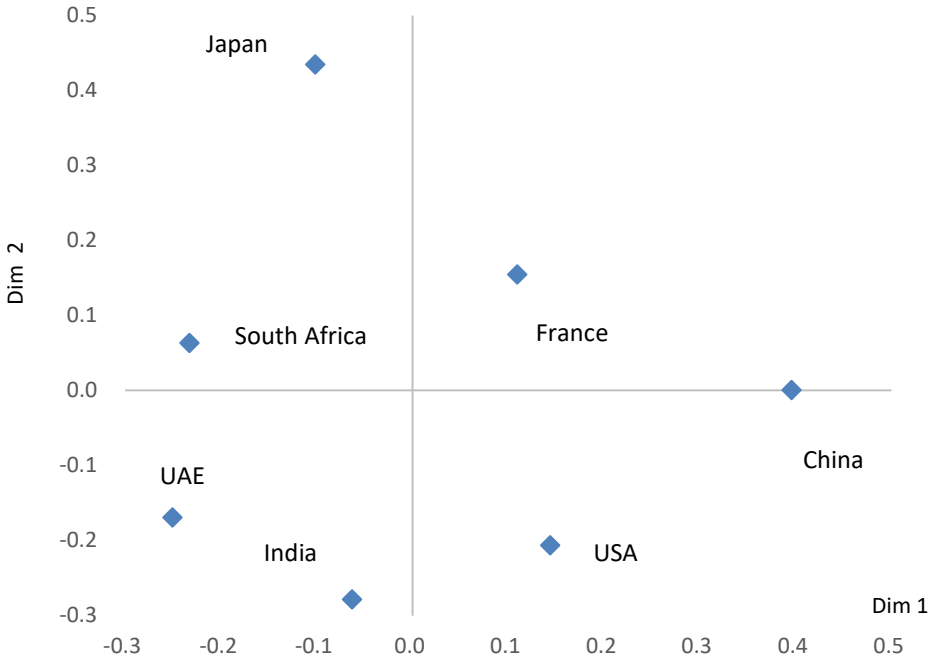
Table 6. Seven-Country Means and Variances of Evaluation Scores for Moral Principles Classified as Survival Justice and Distributive Justice

Surivival	Survival Means	PUR	SUV	INR	HP	PRO	COM
Means	5.02	5.20	5.06	5.04	5.09	4.74	5.01
Variances	0.079	0.085	0.049	0.077	0.079	0.091	0.094
Distributive	Distributive Means	ALT	REC	SUF	AUT	EG	UT
Means	4.87	5.05	4.89	4.88	4.86	4.70	4.83
Variances	0.128	0.132	0.151	0.109	0.149	0.117	0.110

Notes.

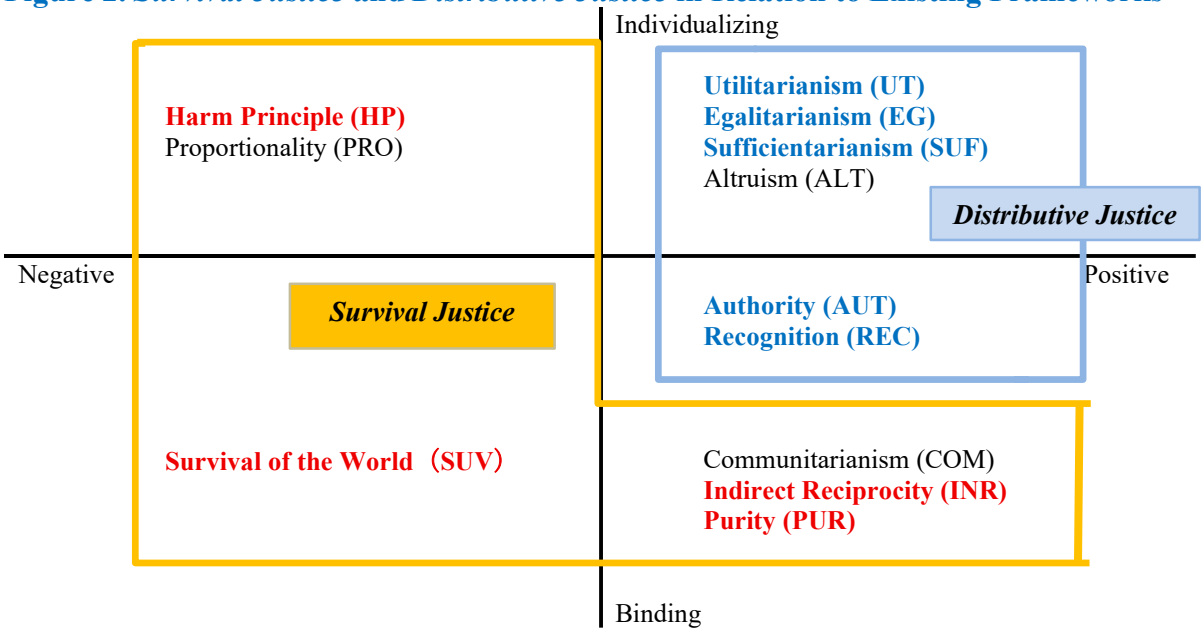
1. EG = Egalitarianism; PRO = Proportionality; UT = Utilitarianism; SUF = Sufficientarianism; HP = Harm Principle; ALT = Altruism; COM = Communitarianism; INR = Indirect Reciprocity; REC = Recognition; SUV = Survival of the World; AUT = Authority; PUR = Purity.
2. Among the principles classified as Survival Justice, principles are ordered in descending order of positive correlation coefficients from PUR to COM. Among the principles classified as Distributive Justice, principles are ordered in descending order of negative correlation coefficients from ALT to UT.
3. Values greater than the overall mean and variance across the twelve principles (4.95 and 0.104, respectively) are highlighted in orange.

Figure 1. Multidimensional Scaling (MDS) Based on Country-Level Evaluations of Moral Principles (Euclidean Distance)



Note. Distances between countries are calculated using Euclidean distance and projected into a two-dimensional space using metric MDS (Stress-1 = 0.186).

Figure 2. *Survival Justice* and *Distributive Justice* in Relation to Existing Frameworks



Note. Principles with strong correlations with *Survival Justice* are highlighted in red, while those with strong correlations with *Distributive Justice* are highlighted in blue (see Supplementary Table S6 for correlation coefficients).

Supplementary Materials

Table S1. Survey Questionnaire (Excerpt)

- This survey is being conducted at the request of the research institute.
- All survey responses will be processed in a manner that does not identify individuals.
- People who live today and those who will live in the future are separated by time and cannot speak directly to each other or make social decisions around the same table. However, we and people in the future do not live on separate planets, and our actions could have a positive or negative impact on people in the future, separated by time.
- Considering this, please answer the following questions.

Q1. Please answer the following question considering the view expressed below.

View: "We, the people living today, need to ensure that the degree of well-being of those who will live in the future is the same as that of ourselves."

Supplementary explanation: Assume that we can measure the happiness that we feel and the happiness that people will experience in the future. This view requires that we behave in a manner such that our happiness and that of future people are at comparable levels.

Please select one of the following that *best describes your opinion* on the above view.

1 Very appropriate
2 Appropriate
3 Somewhat appropriate
4 Cannot decide
5 Somewhat inappropriate
6 Inappropriate
7 Highly inappropriate

Q2.

View: "We, the people living today, need to ensure that those who will live in the future will not be disadvantaged for no good reason."

Supplementary explanation: This view holds that good outcomes for diligent and prudent people are desirable, while bad outcomes for lazy or careless people may be unavoidable. It requires that future people who have done nothing wrong should not suffer bad outcomes.

Q3.

View: "We, the people living today, need to maximize the sum of the well-being of ourselves and those who will live in the future."

Supplementary explanation: Assume that we can sum the happiness we feel and the happiness that people in the future will feel. This view requires us to behave so as to maximize this total.

Q4.

View: "We, the people living today, need to ensure that people who will live in the future will enjoy at least a satisfactory degree of well-being."

Supplementary explanation: Assume that the happiness of future people can be measured. This view requires ensuring that future people enjoy at least a moderate level of happiness.

Q5.

View: "We, the people living today, need to avoid causing harm to those who will live in the future."

Supplementary explanation: Our actions may have positive or negative impacts on future people. This view requires us to avoid actions that could be considered harmful to them.

Q6.

View: "We, the people living today, need to love future generations and promote their well-being."

Supplementary explanation: This view requires us to act in ways that positively affect future people and enhance their well-being.

Q7.

View: "We, the people of today and those of the future, are members of the same community, and we need to increase the well-being of those in the future as well as our own."

Supplementary explanation: Based on the recognition that present and future people belong to the same community, this view requires us to promote the well-being of future people as we do our own.

Q8.

View: "We, the people living today, have inherited civilization and society from our ancestors. We need to develop that civilization and society further, and pass it on to the people who will live in the future."

Supplementary explanation: Civilization and society were not created solely by us but inherited from our ancestors. This view requires us to develop and pass them on to future generations.

Q9.

View: "It is important for those of us living today to be recognized as right and good by future people in our actions."

Supplementary explanation: Future generations can evaluate our actions after we have left this world. This view suggests that it is desirable for us to be recognized as having acted morally and socially well.

Q10.

View: "We, the people living today, need to ensure that humanity and civilization do not cease to exist because of our actions."

Supplementary explanation: Given the unprecedented power we hold, this view requires avoiding actions that could lead to irreversible damage and the destruction of humanity and civilization.

Q11.

View: "We, the people living today, are entrusted with the management of nature and society by an entity that has authority over us. We need to manage nature and society properly so that they can flourish in perpetuity."

Supplementary explanation: This view holds that nature and society are entrusted to us by a higher authority, and that we should manage them so they flourish beyond our time.

Q12.

View: "We, the people living today, need to maintain nature and society in which future people will live in a clean state."

Supplementary explanation: This view emphasizes maintaining the natural and social environment for future people in a clean, orderly, and beautiful state.

Note. The order of Questions 1–12 was randomized.

Q13

- Imagine that your country is the only country in the world.
- Assume that climate change owing to CO2 emissions is predicted to have a negative impact on people in the future. Assume that you are a voter in that country and that the government has proposed a tax increase to combat climate change. Assume that the government uses following views to persuade you.
- Please select **all** of these views that you find persuasive. (However, if you select "I do not find either view persuasive", select it only).

1. The degree of well-being of future people should be the same as that of people today.
2. Future people should not be disadvantaged for no good reason.
3. The total sum of well-being of present and future people should be maximized.
4. Future people should enjoy at least a satisfactory degree of well-being.
5. We should avoid causing harm to future people.
6. We should love future generations and promote their well-being.
7. Present and future people are members of the same community, and both should flourish.
8. We should develop and pass on civilization and society inherited from our ancestors.
9. It is important to be recognized by future people as having acted rightly and well.
10. Humanity and civilization should not cease to exist because of our actions.
11. We are entrusted with the management of nature and society by an authoritative entity.
12. Nature and society for future people should be kept in a clean state.
13. I do not find any view persuasive.

Q14. Please feel free to write the reason for selecting your answer to the above question on climate change.

Q15

- Assume that accumulated government debt is projected to have a negative impact on people in the future. Assume that you are a voter in that country and that the government has proposed a tax increase for fiscal consolidation. Assume that the government uses following views to persuade you.
- Please select **all** of these views that you find persuasive. (However, if you select "I do not find either view persuasive", select it only).

Q16. Please feel free to write the reason for selecting your answer to the above question on government debt.

Q17.

- Imagine that your country is the only country in the world.
- Assume that some advanced technology (e.g., artificial intelligence or nuclear technology) is predicted to bring benefits to us but have a negative impact on future people. Assume that you are a voter in that country and that the government has proposed a ban on the development of that technology. Assume that the government uses following views to persuade you.

- Please select **all** of these views that you find persuasive. (However, if you select "I do not find either view persuasive", select it only).

Q18. Please feel free to write the reason for selecting your answer to the above question on advanced technology.

Note. The order of the policy scenarios (climate change, fiscal policy, and advanced technologies) was randomized. In addition, the order of response options (1–12) was randomized, while option 13 was fixed.

Q19. Considering the relationship between those of us living today and those who will live in the future, what views do you consider appropriate? You need not limit yourself to the views presented so far in this survey. Feel free to write your thoughts.

Finally, please answer the following questions about yourself.

Q20. What is your gender identity?

1. Male
2. Female
3. Other

Q21. How old are you? (Please enter number)

Q22. What is your level of education?

1. Lower than High School
2. High school
3. Some college (no degree), technical certification, associate degree (2-year)
4. Bachelor's degree (4-year)
5. Master's degree
6. Doctoral degree

Q23. Which of the following best describes the area you live in?

1. Urban
2. Suburban
3. Rural

Q24. Are you married?

1. Married / Domestic Partner
2. Widowed
3. Divorced
4. Separated
5. Single /

Q25. How many children do you have?

1. None
2. One
3. Two

4. Three
5. Four or more

Q26. How would you describe your political view?

1. Very Liberal
2. Slightly Liberal
3. Slightly Conservative
4. Very Conservative
5. Prefer not to say

Q27. Which race or ethnicity best describes you?

1. Black/Afro/Afro-descendant/African black
2. White
3. Hispanic
4. Native American
5. Arabic
6. East or Southeast Asia
7. South Asian
8. West Asia/Turkey
9. Other

Thank you for taking our survey. Your response is very important to us.

Table S2. Respondent Characteristics (Number (%))

	Global	USA	France	Japan	China	India	UAE	South Africa
Total	3,619	494	530	488	498	537	526	546
Female	1,826 (50.5)	247 (50.0)	295 (55.7)	223 (45.7)	278 (55.8)	240 (44.7)	207 (39.4)	336 (61.5)
Age								
young	1,392 (38.5)	102 (20.7)	70 (13.2)	73 (15.0)	258 (51.8)	285 (53.1)	275 (52.3)	329 (60.3)
middle-aged	1,833 (50.6)	281 (56.9)	299 (56.4)	323 (66.2)	238 (47.8)	241 (44.9)	249 (47.3)	202 (37.0)
older	394 (10.9)	111 (22.5)	161 (30.4)	92 (18.9)	2 (0.40)	11 (2.1)	2 (0.38)	15 (2.75)
College degree or +	2,098 (58.0)	164 (33.2)	143 (27.0)	227 (46.5)	423 (85.0)	448 (83.4)	420 (79.9)	27.3 (50.0)
Urban	2,208 (61.0)	176 (35.6)	232 (43.8)	191 (39.1)	456 (91.6)	444 (82.7)	464 (88.2)	245 (44.9)
Has children	2,436 (67.3)	297 (60.1)	362 (68.3)	214 (43.9)	410 (82.3)	354 (65.9)	385 (73.2)	414 (75.8)
Conservative	1,499 (41.4)	265 (53.6)	201 (37.9)	296 (60.7)	76 (15.3)	112 (20.9)	290 (55.1)	259 (47.4)
Race								
White	-	322 (65.2)	- -	- -	- -	- -	- -	108 (19.8)
Black	- -	99 (20.0)	- -	- -	- -	- -	- -	384 (70.3)

Notes.

1. For age groups, “young” refers to respondents aged 39 or younger, “middle-aged” to those aged 40–64, and “older” to those aged 65 or older.
2. “Urban residence” indicates respondents who selected “urban” from the options “urban,” “suburban,” and “rural.”
3. “Conservative” refers to political ideological orientation, distinguishing conservative respondents from liberals and others (non-conservatives). In China, this question was asked in terms of social ideology.

Table S3. Ranking of Moral Principles (Majority Judgment, Descending Order)

Global			USA			France		
Principles	Median	Responses at or above the median	Principles	Median	Responses at or above the median	Principles	Median	Responses at or above the median
PUR	6	1870	HP	5	364	PUR	6	278
HP	5	2817	ALT	5	350	SUV	5	392
SUV	5	2758	PUR	5	349	HP	5	377
INR	5	2746	SUV	5	343	INR	5	369
ALT	5	2738	INR	5	334	ALT	5	362
COM	5	2697	COM	5	333	COM	5	361
REC	5	2582	SUF	5	331	SUF	5	355
SUF	5	2569	EG	5	320	AUT	5	334
AUT	5	2562	REC	5	316	REC	5	334
UT	5	2471	AUT	5	315	UT	5	322
PRO	5	2406	UT	5	313	EG	5	315
EG	5	2337	PRO	5	282	PRO	5	313

Japan			China			India		
Principles	Median	Responses at or above the median	Principles	Median	Responses at or above the median	Principles	Median	Responses at or above the median
PUR	5	322	PUR	6	252	PUR	6	325
HP	5	315	ALT	5	424	ALT	6	309
SUV	5	299	SUV	5	407	INR	6	295
INR	5	284	INR	5	406	COM	6	290
COM	5	262	REC	5	393	HP	6	286
PRO	5	258	COM	5	388	AUT	6	275
ALT	4	353	SUF	5	365	SUV	6	270
SUF	4	347	HP	5	360	UT	5	437
UT	4	333	UT	5	349	REC	5	428
REC	4	326	AUT	5	349	SUF	5	427
AUT	4	320	EG	5	325	EG	5	418
EG	4	300	PRO	5	318	PRO	5	404

UAE			South Africa		
Principles	Median	Responses at or above the median	Principles	Median	Responses at or above the median
PUR	6	348	ALT	6	360
HP	6	333	PUR	6	356
SUV	6	309	COM	6	347
REC	6	309	INR	6	321
AUT	6	307	SUF	6	304
INR	6	306	AUT	6	299
ALT	6	302	HP	6	278
COM	6	283	SUV	6	262
PRO	6	283	REC	5.5	273
SUF	6	267	UT	5	419
UT	6	266	PRO	5	416
EG	5	398	EG	5	379

Note. EG = Egalitarianism; PRO = Proportionality; UT = Utilitarianism; SUF = Sufficientarianism; HP = Harm Principle; ALT = Altruism; COM = Communitarianism; INR = Indirect Reciprocity; REC = Recognition; SUV = Survival of the World; AUT = Authority; PUR = Purity.

Table S4. Factor Analysis (Survey 1)

USA young		France young		France older		Japan young	
Factor 1: *Survival Justice*	UT	Factor 1: *Survival Justice*	SUV	Factor 1: *Distributive Justice*	AUT	Factor 1: *Survival Justice*	SUV
	HP		PUR		INR		PUR
	AUT		INR		PRO		PRO
	REC		SUF		EG		SUF
	SUF		ALT		SUF		UT
	INR		COM		UT		ALT
Factor 2: *Distributive Justice*	EG		HP	Factor 2: *Survival Justice*	HP		HP
	COM	Factor 2: *Distributive Justice*	AUT		SUV	Factor 2: *Distributive Justice*	EG
	ALT		UT		COM		COM
	PUR		REC		PUR		REC
	SUV		PRO		ALT		AUT
	PRO		EG		REC		INR

Japan older		China middle-aged		UAE all ages		South Africa young	
Factor 1: *Survival Justice*	PUR	Factor 1: *Distributive Justice*	PUR	Factor 1: *Distributive Justice*	COM	Factor 1: *Survival Justice*	SUV
	INR		ALT		SUF		PUR
	HP		COM		UT		AUT
	SUV		SUF		REC		COM
	COM		EG		ALT		HP
	UT		AUT		EG	Factor 2: *Distributive Justice*	EG
	ALT		HP		INR		SUF
	REC	Factor 2: *Survival Justice*	SUV	Factor 2: *Survival Justice*	SUV		UT
	PRO		INR		PRO		REC
Factor 2: *Distributive Justice*	SUF		REC		HP		ALT
	EG		PRO		AUT		INR
	AUT		UT		PUR		PRO

Table S5. Factor Components (Frequency of Moral Principles)

Factor: *Survival Justice*	Factor: *Distributive Justice*
7 Survival of the World (SUV)	8 Egalitarianism (EG)
7 Harm Principle (HP)	6 Authority (AUT)
6 Purity (PUR)	5 Sufficientarianism (SUF)
4 Indirect Reciprocity (INR)	4 Utilitarianism (UT)
4 Proportionality (PRO)	4 Altruism (ALT)
4 Communitarianism (COM)	4 Communitarianism (COM)
4 Altruism (ALT)	4 Proportionality (PRO)
4 Authority (AUT)	4 Indirect Reciprocity (INR)
4 Recognition (REC)	2 Harm Principle (HP)
4 Utilitarianism (UT)	2 Purity (PUR)
3 Sufficientarianism (SUF)	1 Recognition (REC)

Notes.
1. The numbers indicate the frequency with which each moral principle loads onto the corresponding factor.
2. Frequencies are calculated based on the results reported in Table S4.

Table S6. Correlations between Moral Principles and Dimensions from Multidimensional Scaling (MDS)

Dim 1 (minus)	PRO	HP	AUT	UT	PUR	REC
	-0.758	-0.652	-0.638	0.048	0.097	0.100
SUF	EG	COM	ALT	INR	SUV	Dim 1 (plus)
0.293	0.294	0.336	0.420	0.474	0.623	

Dim 2 (minus)	UT	EG	AUT	SUF	REC	ALT
	-0.745	-0.719	-0.612	-0.632	-0.646	-0.302
COM	PRO	INR	HP	SUV	PUR	Dim 2 (plus)
0.302	0.397	0.416	0.500	0.709	0.772	

Notes:
EG = Egalitarianism; PRO = Proportionality; UT = Utilitarianism; SUF = Sufficientarianism; HP = Harm Principle; ALT = Altruism; COM = Communitarianism; INR = Indirect Reciprocity; REC = Recognition; SUV = Survival of the World; AUT = Authority; PUR = Purity.

Table S7. Associations between Evaluations of Moral Principles and Individual Attributes, by Country (Tobit)

	USA		France	
	Survival Justice	Distributive Justice	Survival Justice	Distributive Justice
Female (=1)	-0.1479	-0.1467	-0.0600	-0.0008
	(-0.1247)	(-0.1247)	(-0.0524)	(-0.0007)
Age (years)	0.0029	-0.0000	0.0064**	0.0049*
	(0.0025)	(-0.0000)	(0.0056)	(0.0045)
College degree or higher	0.2040*	0.0436	0.0620	-0.0386
	(0.1721)	(0.0370)	(0.0541)	(-0.0353)
Urban residence	0.3377***	0.3973***	0.0118	0.0633
	(0.2848)	(0.3378)	(0.0103)	(0.0579)
Has children	0.2776***	0.3589***	0.0721	0.1213
	(0.2341)	(0.3051)	(0.0629)	(0.1109)
Ideology (Conservative=1)	0.0187	0.1108	0.0711	0.0403
	(0.0158)	(0.0942)	(0.0620)	(0.0369)
Race (White=1)	-0.0872	-0.1066		
	(-0.0736)	(-0.0906)		
Constant	4.5017***	4.5185***	4.5421***	4.3502***
Pseudo R2	0.0195	0.0206	0.0067	0.0056

	Japan		China	
	Survival Justice	Distributive Justice	Survival Justice	Distributive Justice
Female (=1)	0.1941*	0.1743*	-0.1635**	-0.0765
	(0.1773)	(0.1685)	(-0.1436)	(-0.0695)
Age (years)	0.0064*	0.0054	0.0286***	0.0228***
	(0.0059)	(0.0052)	(0.0251)	(0.0207)
College degree or higher	-0.0314	-0.0635	-0.0832	-0.1643
	(-0.0287)	(-0.0614)	(-0.0730)	(-0.1494)
Urban residence	-0.0098	0.0196	0.1242	0.2313*
	(-0.0089)	(0.0190)	(0.1090)	(0.2104)
Has children	0.1079	0.1500	-0.1945*	-0.0213
	(0.0985)	(0.1450)	(-0.1708)	(-0.0194)
Ideology (Conservative=1)	-0.0488	0.0999	-0.1780*	-0.1482
	(-0.0446)	(0.0965)	(-0.1563)	(-0.1348)
Constant	4.1674***	3.7231***	4.3378***	4.1866***
Pseudo R2	0.0064	0.0082	0.0414	0.0315

	India		UAE	
	Survival Justice	Distributive Justice	Survival Justice	Distributive Justice
Female (=1)	-0.0748 (-0.0555)	-0.0188 (-0.0145)	-0.0534 (-0.0402)	-0.0493 (-0.0384)
Age (years)	-0.0015 (-0.0011)	-0.0020 (-0.0016)	0.0021 (0.0016)	0.0036 (0.0028)
College degree or higher	0.0088 (0.0065)	0.0158 (0.0122)	0.1150 (0.0865)	0.1922* (0.1496)
Urban residence	0.2322** (0.1723)	0.3493*** (0.2699)	0.4096*** (0.3082)	0.2518** (0.1960)
Has children	0.1907* (0.1415)	0.1992* (0.1539)	-0.0610 (-0.0459)	0.1821* (0.1417)
Ideology (Conservative=1)	-0.3178*** (-0.2358)	-0.3119*** (0.1539)	0.1099 (0.0826)	0.0539 (0.0419)
Constant	5.1706***	4.9843***	4.9184***	4.6835***
Pseudo R2	0.0125	0.0180	0.0167	0.0155

	South Africa	
	Survival Justice	Distributive Justice
Female (=1)	-0.0633 (-0.0481)	-0.0355 (-0.0291)
Age (years)	0.0058* (0.0044)	0.0032 (0.0026)
College degree or higher	-0.0418 (-0.0318)	0.0030 (0.0024)
Urban residence	0.0340 (0.0258)	-0.0360 (-0.0296)
Has children	0.0824 (0.0627)	0.2739*** (0.2248)
Ideology (Conservative=1)	-0.1533** (-0.1165)	-0.1054 (-0.0865)
Race (White=1)	-0.1663* (-0.1264)	-0.1344 (-1.087)
Constant	5.2994***	5.0385***
Pseudo R2	0.0095	0.0128

Notes.
1. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.
2. Marginal effects are reported in parentheses below the coefficients. Positive and statistically significant coefficients are highlighted in orange, while negative and statistically significant coefficients are highlighted in blue.

Table S8. Associations between Evaluations of Moral Principles and Individual Attributes (Ordered Logit, Global Sample)

	EG	PRO	UT	SUF	HP
Female (=1)	-0.0882	-0.2130***	-0.1453**	-0.0655	-0.0524
	(0.0605)	(0.0613)	(0.0620)	(0.0623)	(0.0636)
Age (years)	0.0028	-0.0004	0.0031	0.0029	0.0090***
	(0.0025)	(0.0026)	(0.0025)	(0.0025)	(0.0026)
College degree or higher	-0.0018	-0.0786	0.081	0.0225	0.0132
	(0.0711)	(0.0708)	(0.0734)	(0.0725)	(0.0736)
Urban residence	0.2165***	0.2456***	0.2536***	0.2704***	0.2942***
	(0.0724)	(0.0732)	(0.0729)	(0.0726)	(0.0748)
Has children	0.4044***	0.0674	0.1633**	0.2220***	0.0446
	(0.0706)	(0.0714)	(0.0707)	(0.0726)	(0.0723)
Ideology (Conservative=1)	-0.0405	-0.0703	-0.0669	-0.0427	-0.1166*
	(0.0646)	(0.0651)	(0.0658)	(0.0655)	(0.0684)
France	-0.2878**	-0.0124	-0.1147	-0.2084***	-0.1083
	(0.1173)	(0.1145)	(0.1161)	(0.1194)	(0.1193)
Japan	-1.0966***	-0.2516**	-0.7864***	-1.0191***	-0.5877***
	(0.1162)	(0.1147)	(0.1191)	(0.1221)	(0.1171)
China	-0.3298**	0.0011	0.0754	-0.1367	-0.2289*
	(0.1302)	(0.1362)	(0.1347)	(0.1379)	(0.1352)
India	0.4800***	0.6686***	0.7425***	0.4829***	0.4665***
	(0.1306)	(0.1329)	(0.1328)	(0.1398)	(0.1345)
UAE	0.4408***	0.9928***	0.7559***	0.5723***	0.9087***
	(0.1336)	(0.1358)	(0.1366)	(0.1393)	(0.1383)
South Africa	0.2231*	0.8806***	0.6633***	0.7421***	1.1717***
	(0.1252)	(0.1296)	(0.1244)	(0.1328)	(0.1330)
Pseudo R2	0.0337	0.0262	0.0350	0.0378	0.0364

	ALT	COM	INR	REC	SUV
Female (=1)	-0.0169	-0.0198	-0.0843	-0.0798	-0.1751***
	(0.0635)	(0.0629)	(0.0634)	(0.0627)	(0.0636)
Age (years)	0.0022	0.0068**	0.0078***	0.0048*	0.0073***
	(0.0026)	(0.0026)	(0.0026)	(0.0026)	(0.0026)
College degree or higher	-0.0764	-0.0116	0.0432	-0.1346*	0.0224
	(0.0732)	(0.0722)	(0.0713)	(0.0719)	(0.0728)
Urban residence	0.2967***	0.1708**	0.1904**	0.2415***	0.0224***
	(0.0761)	(0.0745)	(0.0743)	(0.0738)	(0.0728)
Has children	0.2908***	0.2676***	0.0547	0.3075***	0.1120
	(0.0723)	(0.0724)	(0.0754)	(0.0729)	(0.0734)
Ideology (Conservative=1)	-0.0235	-0.1667**	0.0630	-0.0359	-0.1066
	(0.0693)	(0.0675)	(0.0680)	(0.0678)	(0.0686)
France	-0.2012*	-0.1395	-0.0008	-0.2515**	0.0529
	(0.1178)	(0.1206)	(0.1191)	(0.1190)	(0.1215)
Japan	-0.9707***	-0.6781***	-0.5572***	-0.8911***	-0.5476***
	(0.1204)	(0.1202)	(0.1172)	(0.1220)	(0.1206)
China	0.2797**	0.2547*	0.5680***	0.4314***	0.2623*
	(0.1342)	(0.1389)	(0.1359)	(0.1375)	(0.1340)
India	0.7257***	0.8177***	0.8601***	0.7655***	0.2821**
	(0.1373)	(0.1408)	(0.1353)	(0.1380)	(0.1335)
UAE	0.6299***	0.7784***	0.9237***	1.1766***	0.5666***
	(0.1396)	(0.1435)	(0.1385)	(0.1412)	(0.1381)
South Africa	1.0630***	1.0856***	0.9424***	0.9052***	0.7637***
	(0.1324)	(0.1327)	(0.1329)	(0.1308)	(0.1288)
Pseudo R2	0.0492	0.0395	0.0309	0.0504	0.0196

	AUT	PUR
Female (=1)	0.0236 (0.0625)	-0.1207* (0.0654)
Age (years)	0.0067 (0.0026)	0.0081*** (0.0027)
College degree or higher	-0.0073 (0.0721)	-0.0582 (0.0742)
Urban residence	0.2124*** (0.0743)	0.1890** (0.0767)
Has children	0.1780** (0.0720)	0.2157*** (0.0742)
Ideology (Conservative=1)	-0.0301 (0.0665)	-0.1426** (0.0704)
France	-0.1567 (0.1189)	0.4922*** (0.1258)
Japan	-0.7573*** (0.1159)	-0.3716*** (0.1179)
China	0.1371 (0.1335)	0.5858*** (0.1373)
India	0.8051*** (0.1319)	0.9717*** (0.1393)
UAE	1.0183*** (0.1375)	1.2117*** (0.1437)
South Africa	1.0237*** (0.1250)	1.2980*** (0.1326)
Pseudo R2	0.0400	0.0396

Notes.
1. N = 3,619; ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.
2. EG = Egalitarianism; PRO = Proportionality; UT = Utilitarianism; SUF = Sufficientarianism; HP = Harm Principle; ALT = Altruism; COM = Communitarianism; INR = Indirect Reciprocity; REC = Recognition; SUV = Survival of the World; AUT = Authority; PUR = Purity.
3. Positive and statistically significant coefficients are highlighted in orange, while negative and statistically significant coefficients are highlighted in blue.

Table S9. Difference in Evaluation Scores between Survival Justice and Distributive Justice (Specialization Index), (By Age Group and Age-Standardized)

	Young	Middle-aged	Older	Age-standardized
Japan	0.468	0.334	0.464	0.400
France	0.131	0.230	0.206	0.189
South Africa	0.140	0.143	0.033	0.130
China	0.096	0.125	0.000[*2]	0.101 (0.113)
UAE	0.129	0.070	-0.250[*2]	0.058 (0.096)
USA	-0.025	0.076	0.164	0.047
India	0.073	0.024	0.015	0.042

Notes.

1 The age-group–specific differences in evaluation scores between Survival Justice and Distributive Justice (not age-standardized) indicate that specialization toward Survival Justice in Japan and France is observed consistently across age groups.

2 The oldest age group in China and the UAE consists of only two respondents each and is therefore reported for reference only.

3 Age standardization refers to calculating country-level specialization indices using the age composition of the full sample (young: 38.5%, middle-aged: 50.6%, older: 10.9%). Values in parentheses for China and the UAE report age-standardized specialization indices calculated using only the young and middle-aged groups, excluding the oldest group.

Table S10. Regression Analysis of the Difference in Evaluation Scores between Survival Justice and Distributive Justice (Specialization Index) (OLS)

Dependent variable: Specialization index	
USA	-0.3048***
	(0.0355)
France	-0.1716***
	(0.0361)
China	-0.2608***
	(0.0377)
India	-0.3227***
	(0.0373)
UAE	-0.2707***
	(0.0376)
South Africa	-0.2364***
	(0.0373)
Middle-aged	-0.0090
	(0.0205)
Older	0.0397
	(0.0344)
College degree or higher	0.0102
	(0.0216)
Urban residence	-0.0116
	(0.0220)
Constant	0.3767***
	(0.0340)
R2	0.035

Notes.

1. N = 3,619; ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.
2. The reference categories are Japan for country, the youngest age group for age, non-college for education, and non-urban for residence.

Table S11. Responses in Climate Change, Fiscal Policy, and Advanced Technology: Persuasive Moral Principles (Multiple Responses Allowed)

(a) By Theme

USA	Survival Justice	Distributive Justice	No persuasive principle
Climate	0.261	0.213	0.144
Fiscal	0.238	0.211	0.186
Technology	0.239	0.200	0.174
France	Survival Justice	Distributive Justice	No persuasive principle
Climate	0.279	0.210	0.147
Fiscal	0.266	0.195	0.172
Technology	0.281	0.200	0.155
Japan	Survival Justice	Distributive Justice	No persuasive principle
Climate	0.294	0.174	0.160
Fiscal	0.270	0.171	0.176
Technology	0.295	0.162	0.164
China	Survival Justice	Distributive Justice	No persuasive principle
Climate	0.311	0.268	0.066
Fiscal	0.260	0.268	0.116
Technology	0.322	0.261	0.070
\India	Survival Justice	Distributive Justice	No persuasive principle
Climate	0.364	0.336	0.032
Fiscal	0.357	0.349	0.073
Technology	0.363	0.333	0.050
UAE	Survival Justice	Distributive Justice	No persuasive principle
Climate	0.313	0.275	0.036
Fiscal	0.287	0.280	0.080
Technology	0.316	0.264	0.063
South Africa	Survival Justice	Distributive Justice	No persuasive principle
Climate	0.346	0.311	0.066
Fiscal	0.320	0.292	0.134
Technology	0.334	0.303	0.114

(b) By Moral Principle

USA	EG	PRO	UT	SUF	HP	ALT	COM	INR	REC	SUV	AUT	PUR	NON
Climate	0.221	0.231	0.196	0.213	0.291	0.198	0.235	0.233	0.198	0.302	0.251	0.273	0.144
Fiscal	0.198	0.219	0.225	0.221	0.273	0.211	0.213	0.227	0.186	0.249	0.223	0.247	0.186
Technology	0.198	0.233	0.204	0.213	0.277	0.206	0.194	0.251	0.182	0.263	0.194	0.215	0.174
France	EG	PRO	UT	SUF	HP	ALT	COM	INR	REC	SUV	AUT	PUR	NON
Climate	0.192	0.191	0.177	0.211	0.323	0.211	0.223	0.245	0.209	0.326	0.258	0.366	0.147
Fiscal	0.187	0.251	0.177	0.209	0.309	0.198	0.226	0.258	0.200	0.275	0.200	0.274	0.172
Technology	0.181	0.226	0.170	0.208	0.313	0.206	0.226	0.275	0.208	0.317	0.225	0.328	0.155
Japan	EG	PRO	UT	SUF	HP	ALT	COM	INR	REC	SUV	AUT	PUR	NON
Climate	0.135	0.285	0.152	0.172	0.330	0.189	0.205	0.277	0.156	0.314	0.242	0.352	0.160
Fiscal	0.160	0.346	0.152	0.211	0.283	0.178	0.199	0.277	0.162	0.260	0.160	0.252	0.176
Technology	0.135	0.311	0.123	0.176	0.363	0.176	0.215	0.295	0.186	0.324	0.174	0.262	0.164
China	EG	PRO	UT	SUF	HP	ALT	COM	INR	REC	SUV	AUT	PUR	NON
Climate	0.205	0.229	0.247	0.247	0.313	0.317	0.251	0.343	0.249	0.325	0.341	0.402	0.066
Fiscal	0.219	0.231	0.285	0.249	0.271	0.299	0.287	0.315	0.277	0.237	0.281	0.219	0.116
Technology	0.197	0.303	0.265	0.243	0.367	0.263	0.279	0.327	0.283	0.367	0.315	0.291	0.070
\India	EG	PRO	UT	SUF	HP	ALT	COM	INR	REC	SUV	AUT	PUR	NON
Climate	0.311	0.350	0.292	0.318	0.371	0.350	0.348	0.343	0.356	0.359	0.387	0.412	0.032
Fiscal	0.326	0.361	0.343	0.369	0.307	0.343	0.382	0.378	0.361	0.345	0.350	0.369	0.073
Technology	0.311	0.350	0.331	0.343	0.404	0.330	0.356	0.337	0.324	0.356	0.361	0.372	0.050
UAE	EG	PRO	UT	SUF	HP	ALT	COM	INR	REC	SUV	AUT	PUR	NON
Climate	0.243	0.304	0.253	0.257	0.373	0.234	0.247	0.306	0.289	0.283	0.371	0.367	0.036
Fiscal	0.283	0.306	0.293	0.308	0.319	0.298	0.262	0.276	0.278	0.293	0.221	0.268	0.080
Technology	0.234	0.314	0.264	0.232	0.394	0.245	0.264	0.327	0.285	0.331	0.321	0.264	0.063
South Africa	EG	PRO	UT	SUF	HP	ALT	COM	INR	REC	SUV	AUT	PUR	NON
Climate	0.289	0.330	0.293	0.326	0.368	0.304	0.341	0.284	0.306	0.344	0.348	0.407	0.066
Fiscal	0.260	0.339	0.299	0.324	0.335	0.284	0.328	0.317	0.289	0.302	0.295	0.299	0.134
Technology	0.253	0.344	0.284	0.306	0.388	0.322	0.291	0.311	0.315	0.341	0.337	0.326	0.114

Notes.

1. EG = Egalitarianism; PRO = Proportionality; UT = Utilitarianism; SUF = Sufficientarianism; HP = Harm Principle; ALT = Altruism; COM = Communitarianism; INR = Indirect Reciprocity; REC = Recognition; SUV = Survival of the World; AUT = Authority; PUR = Purity; NON = No persuasive principle.
2. Principles for which the proportion of respondents selecting them exceeds the sample mean by more than one standard deviation are highlighted in yellow, while those falling more than one standard deviation below the mean are highlighted in blue.

Table S12. Associations between Selection of Survival Justice, Distributive Justice, and No Persuasive Principle and Cultural and Individual Attributes (Global Sample)

1) Climate	Survival Justice	Distributive Justice	No Persuasive Principle
Female (=1)	-0.0251 (-0.0169)	-0.0393** (-0.0234)	0.0883 (0.0070)
Age (years)	0.0023*** (0.0016)	0.0021*** (0.0012)	0.0075* (0.0006)
College degree or higher	0.0045 (0.0030)	-0.0039 (-0.0023)	-0.1922 (-0.0153)
Urban residence	0.0203 (0.0136)	0.0180 (0.0107)	-0.2615** (-0.0209)
Has children	0.0405** (0.0272)	0.0663*** (0.0396)	-0.5921*** (-0.0472)
Ideology (Conservative=1)	-0.0112 (-0.0075)	0.0032 (0.0019)	0.0079 (0.0006)
France	0.0164 (0.0111)	-0.0096 (-0.0057)	0.0645 (0.0052)
Japan	0.0563* (0.0379)	-0.0696** (-0.0415)	0.0693 (0.0055)
China	0.1006*** (0.0677)	0.1294*** (0.0772)	-0.3569 (-0.0285)
India	0.1793*** (0.1206)	0.2362*** (0.1410)	-1.2644*** (-0.1009)
UAE	0.1140*** (0.0767)	0.1405*** (0.0839)	-1.0744*** (-0.0857)
South Africa	0.1660*** (0.1117)	0.2058*** (0.1228)	-0.6111*** (-0.0488)
Constant	0.0435	-0.0545	-1.7363***
Pseudo R2	0.0149	0.0330	0.0670

2) Fiscal Policy	Survival Justice	Distributive Justice	No Persuasive Principle
Female (=1)	-0.0290* (-0.0181)	-0.0326* (-0.0188)	0.0198 (0.0022)
Age (years)	0.0035*** (0.0022)	0.0030*** (0.0017)	0.0028 (0.0003)
College degree or higher	0.0399** (0.0250)	0.0206 (0.0119)	-0.2252** (-0.0253)
Urban residence	0.0255 (0.0160)	0.0095 (0.0055)	-0.1013 (-0.0114)
Has children	0.0697*** (0.0437)	0.0730*** (0.0420)	-0.4790*** (-0.0538)
Ideology (Conservative=1)	-0.0153 (-0.0096)	-0.0053 (-0.0031)	-0.1183 (-0.0133)
France	0.0268 (0.0168)	-0.0435 (-0.0251)	-0.0927 (-0.0104)
Japan	0.0529* (0.0331)	-0.0869** (-0.0500)	-0.1050 (-0.0118)
China	0.0432 (0.0271)	0.1371*** (0.0789)	-0.2718 (-0.0305)
India	0.1940*** (0.1215)	0.2566*** (0.1478)	-0.8862*** (-0.0996)
UAE	0.0982*** (0.0615)	0.2566*** (0.0909)	-0.7101*** (-0.0798)
South Africa	0.1632*** (0.1022)	0.1756*** (0.1011)	-0.2417 (-0.02716)
Constant	-0.0831*	-0.1165***	-1.1828
Pseudo R2	0.0207	0.0362	0.0315

3) Technology	Survival Justice	Distributive Justice	No Persuasive Principle
Female (=1)	-0.0270*	-0.0632***	-0.0089
	(-0.0180)	(-0.0365)	(-0.0009)
Age (years)	0.0020***	0.0016**	0.0153***
	(0.0013)	(0.0009)	(0.0015)
College degree or higher	0.0232	-0.0105	-0.2124*
	(0.0154)	(-0.0060)	(-0.0204)
Urban residence	0.0077	0.0270	-0.1025
	(0.0051)	(0.0156)	(-0.0098)
Has children	0.0411**	0.0892***	-0.5085***
	(0.0274)	(0.0515)	(-0.0488)
Ideology (Conservative=1)	-0.0127	-0.0183	0.0071
	(-0.0085)	(-0.0106)	(0.0007)
France	0.0617**	-0.0128	-0.1496
	(0.0411)	(-0.0074)	(-0.0144)
Japan	0.0975***	-0.0949***	-0.1260
	(0.0649)	(-0.0548)	(-0.0121)
China	0.1545***	0.1118***	-0.4907**
	(0.1029)	(0.0645)	(-0.0471)
India	0.2014***	0.2292***	-0.9613***
	(0.1341)	(0.1324)	(-0.0922)
UAE	0.1497***	0.1172***	-0.6937***
	(0.0997)	(0.0677)	(-0.0666)
South Africa	0.1747***	0.1920***	-0.1251
	(0.1163)	(0.1108)	(-0.0120)
Constant	0.0219	-0.0413	-1.9459***
Pseudo R2	0.0157	0.0382	0.0478

Notes.
1. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.
2. Tobit models are used for Survival Justice and Distributive Justice, while a logit model is used for No Persuasive Principle.
3. Positive and statistically significant coefficients are highlighted in orange, while negative and statistically significant coefficients are highlighted in blue.

Table S13. Coding Rules

Construction Procedure

In Survey 2, participants were asked to provide open-ended explanations for their responses. In addition, at the end of the survey, respondents were invited to freely express their views on intergenerational issues. The coding rules were developed to enable an objective analysis of these textual responses. When a response contains a word or phrase corresponding to a given category, the response is classified as addressing that category, and the number of such responses (or respondents) is counted. The rules that assign words or phrases to categories are referred to as the coding rules.

These rules were constructed by three independent native English speakers. Words or phrases were assigned to a category only when at least two coders agreed, yielding a conservative rule-based coding scheme. Based on this coding scheme, the open-ended responses—machine-translated into English using Google Translate—were analyzed. The analysis was conducted using KH Coder.

The specific coding rules used in this study are as follows.

*Future generation/children
Future. future and generation. next generation. child. grandchild. Children. Kid. Grandkid. Grandchildren. Grandson. great-grandchild. Grandchildren. Descendant. Offspring.

*Humankind/Earth/survival
Human. Humanity. Humanistic. Humankind. Mankind. Planet. Planetary. Earth. Earthing. Nature. Global. World. Survival. Survive. Extinction. Extinct. Exist. existence

*Heritage/sustainability
Heritage. Ancestor. Inherit. Inheritance. Legacy. Tradition. History. Sustainability. Sustainable. non-sustainable. Sustain. long-term. Century. tomorrow

*Harm/danger
Harm. Harmful. Suffer. Suffering. Damage. Destroy. Destructive. Disaster. Disastrous. Devastating. Pain. Painful. Detrimental. Terrible. Burden. Unhappiness. Disadvantage. Disadvantaged. Risk. negative impacts. negative legacy. negative effects. Unhealthy. Crisis. Danger. Worse. Bad. Misfortune. Threaten. extreme weather. Catastrophe.

*Care/protection
Care. Protect. Protection. Protector. Preserve. Save. Maintain. Safe. Safeguard. Support. Love. positive impacts.

*Well-being/opportunity
well-being. Happiness. Health. Benefit. Welfare. Opportunity. Possibility. Prosperity.

*Justice/responsibility
Responsibility. Duty. Obligation. Equality. Inequalities. Ethical. Moral. Justice. Justification. Unjust. Fair. Equity. Equitable. Rights.

*Clean/dirty
Clean. Cleanse. Beautiful. pollution-free. Pure. Purity. Dirty. Ugly. Contaminate. Pollution. Unclean. Impure.

*Peace/harmony
Peace. Harmony. Stable. Stability. balance

*Community/family
Community. Family.

*Economy
Economy. Financial. Growth. Deficit. Wealth. Money. Bankrupt. Poverty.

*Technology
Technology. Innovation. AI.

*Tax
Tax. Surtax. taxpayer

*Ban
Ban. Prohibit.

*Government
Government.

Table S14. Reasons for Responses in Survey 2 (Fiscal Policy and Advanced Technology, Percentage of Respondents Using Terms Corresponding to the Coding Rules)

1) Fiscal policy

Categories	Persuasive principle(s)	No persuasive principle	Total	Chi-square
Future generation/children	949 (30.2%)	47 (9.8%)	996 (27.5%)	86.597***
Humankind/Earth/survival	213 (6.8%)	19 (4.0%)	232 (6.4%)	5.135**
heritage/sustainability	125 (4.0%)	7 (1.5%)	132 (3.7%)	6.833***
Harm/danger	272 (8.7%)	27 (5.6%)	299 (8.3%)	4.739**
Care/protection	284 (9.1%)	14 (2.9%)	298 (8.2%)	20.002***
Happiness/opportunity	230 (7.3%)	12 (2.5%)	242 (6.7%)	14.858***
Justice/responsibility	203 (6.5%)	31 (6.4%)	234 (6.5%)	0.000
Clean/dirty	36 (1.2%)	3 (0.6%)	39 (1.1%)	0.637
Peace/harmony	74 (2.4%)	3 (0.6%)	77 (2.1%)	5.221**
Community/family	27 (0.9%)	3 (0.6%)	30 (0.8%)	0.069
Economy	246 (7.8%)	39 (8.1%)	285 (7.9%)	0.013
Technology	14 (0.5%)	1 (0.2%)	15 (0.4%)	0.142
Tax	166 (5.3%)	79 (16.4%)	245 (6.8%)	80.165***
Government	622 (19.8%)	110 (22.9%)	732 (20.2%)	2.215
Number of respondents	3138 (100.0%)	481 (100.0%)	3619 (100.0%)	

2) Technology

Categories	Persuasive principle(s)	No persuasive principle	Total	Chi-square
Future generation/children	1031 (32.1%)	54 (13.3%)	1085 (30.0%)	59.315***
Humankind/Earth/survival	465 (14.5%)	26 (6.4%)	491 (13.6%)	19.187***
heritage/sustainability	109 (3.4%)	2 (0.5%)	111 (3.1%)	9.206***
Harm/danger	399 (12.4%)	37 (9.1%)	436 (12.1%)	3.346*
Care/protection	351 (10.9%)	15 (3.7%)	366 (10.1%)	19.823***
Happiness/opportunity	240 (7.5%)	17 (4.2%)	257 (7.1%)	5.344**
Justice/responsibility	137 (4.3%)	7 (1.7%)	144 (4.0%)	5.401**
Clean/dirty	58 (1.8%)	5 (1.2%)	63 (1.7%)	0.391
Peace/harmony	35 (1.1%)	2 (0.5%)	37 (1.0%)	0.740
Community/family	16 (0.5%)	2 (0.5%)	18 (0.5%)	0.000
Economy	43 (1.3%)	2 (0.5%)	45 (1.2%)	1.456
Technology	951 (29.6%)	117 (28.9%)	1068 (29.5%)	0.054
Tax	3 (0.1%)	0 (0.0%)	3 (0.1%)	0.000
Ban	21 (0.7%)	17 (4.2%)	38 (1.1%)	40.139**
Government	34 (1.1%)	6 (1.5%)	40 (1.1%)	0.267
Number of respondents	3214 (100.0%)	405 (100.0%)	3619 (100.0%)	

Notes.
1. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.
2. When a category shows a significantly higher proportion of respondents in either the "Persuasive principle(s)" or the "No persuasive principle" group, the cell corresponding to the group with the higher proportion is highlighted in orange.

Table S15. Survey 1 Evaluation Scores by Responses in Survey 2: "Persuasive Principle(s) Selected (Yes)" vs. "No Persuasive Principle (NON)"

(a) Climate	EG	PRO	UT	SUF	HP	ALT	COM	INR	REC	SUV	AUT	PUR
Yes, avg	4.78	4.81	4.91	4.95	5.16	5.14	5.08	5.11	4.98	5.13	4.94	5.28
NON, avg	4.04	4.16	4.05	4.31	4.48	4.32	4.35	4.36	4.18	4.39	4.17	4.52
NON, median	4	4	4	5	5	4	5	4	4	5	4	5
(b) Fiscal	EG	PRO	UT	SUF	HP	ALT	COM	INR	REC	SUV	AUT	PUR
Yes, avg	4.78	4.81	4.90	4.95	5.14	5.13	5.07	5.10	4.98	5.11	4.93	5.27
NON, avg	4.28	4.38	4.38	4.54	4.82	4.62	4.65	4.69	4.44	4.76	4.49	4.86
NON, median	5	5	5	5	5	5	5	5	5	5	5	5
(c) Technology	EG	PRO	UT	SUF	HP	ALT	COM	INR	REC	SUV	AUT	PUR
Yes, avg	4.77	4.82	4.90	4.95	5.15	5.12	5.08	5.10	4.97	5.11	4.94	5.27
NON, avg	4.31	4.24	4.35	4.44	4.65	4.57	4.53	4.58	4.40	4.66	4.32	4.74
NON, median	4	4	5	5	5	5	5	5	5	5	5	5

Notes.
1. Yes, avg denotes the mean evaluation score of moral principles in Survey 1 among respondents who identified at least one moral principle as persuasive. NON, avg denotes the mean evaluation score of moral principles in Survey 1 among respondents who selected "no persuasive principle," and NON, median denotes the median evaluation score for the same group.
2. EG = Egalitarianism; PRO = Proportionality; UT = Utilitarianism; SUF = Sufficientarianism; HP = Harm Principle; ALT = Altruism; COM = Communitarianism; INR = Indirect Reciprocity; REC = Recognition; SUV = Survival of the World; AUT = Authority; PUR = Purity.

Table S16. Demographic Data for the Seven Countries (UN, 2024)

	Japan	France	USA	China	UAE	India	South Africa
Median age	49.4	42.3	38.9	39.8	33.9	28.4	27.6
Population growth	-5.56%	+1.37%	+4.74%	-2.85%	+15.71%	+7.39%	+10.37%

Note. Median age is reported for 2024. Population growth refers to projected changes over the period from 2024 to 2034.

Table S17. Characteristics of Open-Ended Responses by Ideology, Gender, Age, Residence, and Parental Status (Percentage of Respondents Using Terms Corresponding to the Coding Rules)

1) Ideology

Categories	Conservative	Liberal	Total	Chi-square
Future generation/children	686 (45.8%)	927 (43.7%)	1613 (44.6%)	1.394
Humankind/Earth/survival	288 (19.2%)	405 (19.1%)	693 (19.2%)	0.002
heritage/sustainability	127 (8.5%)	206 (9.7%)	333 (9.2%)	1.483
Harm/danger	109 (7.3%)	156 (7.4%)	265 (7.3%)	0.001
Care/protection	264 (17.6%)	404 (19.1%)	668 (18.5%)	1.124
Happiness/opportunity	144 (9.6%)	206 (9.7%)	350 (9.7%)	0.003
Justice/responsibility	96 (6.4%)	162 (7.6%)	258 (7.1%)	1.848
Clean/dirty	55 (3.7%)	95 (4.5%)	150 (4.1%)	1.260
Peace/harmony	45 (3.0%)	96 (4.5%)	141 (3.9%)	5.063**
Community/family	10 (0.7%)	21 (1.0%)	31 (0.9%)	0.734
Economy	52 (3.5%)	72 (3.4%)	124 (3.4%)	0.001
Technology	87 (5.8%)	128 (6.0%)	215 (5.9%)	0.049
Tax	8 (0.5%)	8 (0.4%)	16 (0.4%)	0.197
Ban	0 (0.0%)	2 (0.1%)	2 (0.1%)	0.222
Government	27 (1.8%)	13 (0.6%)	40 (1.1%)	10.277***
Number of respondents	1499 (100.0%)	2120 (100.0%)	3619 (100.0%)	

2) Gender

Categories	Male	Female	Total	Chi-square
Future generation/children	756 (42.2%)	857 (46.9%)	1613 (44.6%)	8.137***
Humankind/Earth/survival	345 (19.2%)	348 (19.1%)	693 (19.2%)	0.010
heritage/sustainability	155 (8.6%)	178 (9.8%)	333 (9.2%)	1.189
Harm/danger	118 (6.6%)	147 (8.1%)	265 (7.3%)	2.665
Care/protection	289 (16.1%)	379 (20.8%)	668 (18.5%)	12.621***
Happiness/opportunity	148 (8.3%)	202 (11.1%)	350 (9.7%)	7.848***
Justice/responsibility	125 (7.0%)	133 (7.3%)	258 (7.1%)	0.090
Clean/dirty	64 (3.6%)	86 (4.7%)	150 (4.1%)	2.681
Peace/harmony	68 (3.8%)	73 (4.0%)	141 (3.9%)	0.054
Community/family	16 (0.9%)	15 (0.8%)	31 (0.9%)	0.003
Economy	63 (3.5%)	61 (3.3%)	124 (3.4%)	0.038
Technology	104 (5.8%)	111 (6.1%)	215 (5.9%)	0.081
Tax	5 (0.3%)	11 (0.6%)	16 (0.4%)	1.479
Ban	2 (0.1%)	0 (0.0%)	2 (0.1%)	0.519
Government	21 (1.2%)	19 (1.0%)	40 (1.1%)	0.047
Number of respondents	1793 (100.0%)	1826 (100.0%)	3619 (100.0%)	

3) Age

Categories	Young	Middle-aged	Older	Total	Chi-square
Future generation/children	635 (45.6%)	830 (45.3%)	148 (37.6%)	1613 (44.6%)	8.823**
Humankind/Earth/survival	245 (17.6%)	344 (18.8%)	104 (26.4%)	693 (19.2%)	15.694***
heritage/sustainability	135 (9.7%)	175 (9.6%)	23 (5.8%)	333 (9.2%)	6.010**
Harm/danger	114 (8.19%)	129 (7.0%)	22 (5.6%)	265 (7.3%)	3.517
Care/protection	255 (18.3%)	349 (19.0%)	64 (16.2%)	668 (18.5%)	1.714
Happiness/opportunity	155 (11.14%)	165 (9.0%)	30 (7.6%)	350 (9.7%)	6.264**
Justice/responsibility	107 (7.7%)	131 (7.2%)	20 (5.1%)	258 (7.1%)	3.163
Clean/dirty	53 (3.8%)	73 (4.0%)	24 (6.1%)	150 (4.1%)	4.278
Peace/harmony	51 (3.7%)	78 (4.3%)	12 (3.1%)	141 (3.9%)	1.593
Community/family	13 (0.9%)	15 (0.8%)	3 (0.8%)	31 (0.9%)	0.172
Economy	57 (4.1%)	64 (3.5%)	3 (0.8%)	124 (3.4%)	10.360***
Technology	105 (7.5%)	101 (5.5%)	9 (2.3%)	215 (5.9%)	16.431***
Tax	13 (0.9%)	3 (0.2%)	0 (0.0%)	16 (0.4%)	12.627***
Ban	1 (0.1%)	1 (0.1%)	0 (0.0%)	2 (0.1%)	0.287
Government	19 (1.4%)	19 (1.0%)	2 (0.5%)	40 (1.1%)	2.225
Number of respondents	1392 (100.0%)	1833 (100.0%)	394 (100.0%)	3619 (100.0%)	

4) Residence

Categories	Urban	Non-urban	Total	Chi-square
Future generation/children	1026 (46.5%)	587 (41.6%)	1613 (44.6%)	8.054***
Humankind/Earth/survival	407 (18.4%)	286 (20.3%)	693 (19.2%)	1.758
heritage/sustainability	238 (10.8%)	95 (6.7%)	333 (9.2%)	16.388***
Harm/danger	163 (7.4%)	102 (7.2%)	265 (7.3%)	0.012
Care/protection	439 (19.9%)	229 (16.2%)	668 (18.5%)	7.390***
Happiness/opportunity	238 (10.8%)	112 (7.9%)	350 (9.7%)	7.634***
Justice/responsibility	178 (8.1%)	80 (5.7%)	258 (7.1%)	7.082***
Clean/dirty	100 (4.5%)	50 (3.5%)	150 (4.1%)	1.863
Peace/harmony	96 (4.4%)	45 (3.2%)	141 (3.9%)	2.785*
Community/family	17 (0.8%)	14 (1.0%)	31 (0.9%)	0.273
Economy	83 (3.8%)	41 (2.9%)	124 (3.4%)	1.645
Technology	151 (6.8%)	64 (4.5%)	215 (5.9%)	7.764***
Tax	9 (0.4%)	7 (0.5%)	16 (0.4%)	0.018
Ban	2 (0.1%)	0 (0.0%)	2 (0.1%)	0.165
Government	17 (0.8%)	23 (1.6%)	40 (1.1%)	5.066**
Number of respondents	2208 (100.0%)	1411 (100.0%)	3619 (100.0%)	

5) Parental status

Categories	Has children	No children	Total	Chi-square
Future generation/children	1112 (45.7%)	501 (42.4%)	1613 (44.6%)	3.375*
Humankind/Earth/survival	461 (18.9%)	232 (19.6%)	693 (19.2%)	0.200
heritage/sustainability	248 (10.2%)	85 (7.2%)	333 (9.2%)	8.197***
Harm/danger	188 (7.7%)	77 (6.5%)	265 (7.3%)	1.541
Care/protection	491 (20.2%)	177 (15.0%)	668 (18.5%)	13.930***
Happiness/opportunity	254 (10.4%)	96 (8.1%)	350 (9.7%)	4.611**
Justice/responsibility	181 (7.4%)	77 (6.5%)	258 (7.1%)	0.887
Clean/dirty	107 (4.4%)	43 (3.6%)	150 (4.1%)	0.968
Peace/harmony	94 (3.9%)	47 (4.0%)	141 (3.9%)	0.006
Community/family	19 (0.8%)	12 (1.0%)	31 (0.9%)	0.276
Economy	88 (3.6%)	36 (3.0%)	124 (3.4%)	0.618
Technology	161 (6.6%)	54 (4.6%)	215 (5.9%)	5.596**
Tax	9 (0.4%)	7 (0.6%)	16 (0.4%)	0.460
Ban	1 (0.0%)	1 (0.1%)	2 (0.1%)	0.000
Government	27 (1.1%)	13 (1.1%)	40 (1.1%)	0.000
Number of respondents	2436 (100.0%)	1183 (100.0%)	3619 (100.0%)	

Notes.
1. Cells with relatively higher proportions of references to each category are highlighted, provided that the chi-square test is statistically significant, and the proportion exceeds 3%.
2. groups are defined as follows: young (39 years or younger), middle-aged (40–64 years), and older (65 years or older).
3. For a description of the coding rules, see Table S13.
4. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.