ON THE ACCEPTANCE OF INTERGENERATIONAL LEGACIES:

A COMPARISON OF CANADA AND JAPAN

by

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Abstract

Justice negotiations for climate change, as with other multi-generational issues, have been challenging. Parties in these justice negotiations diverge on how to treat unequally distributed legacies, the product of historical actions. Two issues often emerge: 1) how to balance the positive and negative outcomes associated with the legacies, and 2) how to differentiate between actions undertaken with known outcomes vs. unintended outcomes. Although scarce, literature hints that cultural differences exist in the norms of obligation towards positive and negative consequences, and of valuing the intention when judging an action. Exploring these differences is crucial to understanding the underlying causes of disagreements in historical justice negotiations.

We conducted a survey in Canada and Japan using an analogy of inheritance and debt. Specifically, we collected data on whether and on what conditions Canadians and Japanese 1) accept inheritance, 2) change their likelihood of inheritance acceptance after learning about means of wealth accumulation, 3) accept debt, 4) change their mind about inheritance acceptance after learning about debt, and 5) settle debt. Our statistical analyses yield several findings. First, Canadians are more likely to accept inheritance than Japanese, and care less about positive and negative externalities. Second, intent does not matter. Third, Japanese are more likely than Canadians to decline inheritance when debts are attached. Fourth, Japanese are more likely to settle greater amount of debt than Canadians regardless of debt type. In addition, our analysis also demonstrated that people are more likely to settle a greater fraction of debt if they are women and non-Judeo-Christian. Finally, participants in our study were less likely to settle debt to environmental causes, compared to the debt to employee, bank, or tax.

The findings point to significant differences in the way groups view consequences and obligations in justice negotiations. For negotiations to be successful, countries must come to a shared understanding of intergenerational responsibilities. We hope that this study raises the need for further research and informs the international community of the need of examining and addressing the differences in the perceptions of those charged with dealing with climate justice and similar negotiations.

Lay Summary

This thesis looks at differences across Canadians and Japanese in accepting inheritances or paying debts left behind by previous generations. We found a number of cultural differences including: Canadians being more likely to accept inheritances, even from strangers, but less likely to pay off debts. Japanese were less likely to accept inheritances unless from a close relative and were far more willing to pay off their debts. This study of personal perceptions could be a reflection of how representatives from different countries approach their responsibilities for historic actions. Examining and addressing such cultural differences could help frame international negotiation to yield better outcomes. These insights may improve the negotiating positions of different parties seeking justice for actions spanning many generations and involving peoples of different cultures – e.g., contribution to Climate Change

Preface

This thesis is an original, unpublished work of Kyoko Adachi. The approval of UBC Behavioural Research Ethics Board was obtained for the research conducted for this thesis (Certificate Number #H19-01444). With guidance and feedback from my co-supervisor Dr. Hadi Dowlatabadi, I identified the research problem and designed the research program. I designed the survey after multiple pilot studies and revisions based on feedback from my co-supervisors Dr. Dowlatabadi and Dr. Jiaying Zhao, as well as from people who took the pilot surveys. The survey in Canada was conducted through an online platform, Qualtrics^{xm} and the survey in Japan was distributed through emails via friends and family. I performed the statistical analyses in Chapter 4, with assistance from Dr. Zhao and Dr. Dowlatabadi.

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Acknowledgements

This thesis would not have been possible without the support and guidance from many individuals. First, I would like to thank my co-supervisors, Dr. Hadi Dowlatabadi and Dr. Jiaying Zhao for guiding me through this journey with their insightful advice and encouragement. Hadi, I cannot thank you enough. I was a clueless student who didn't know what she didn't know. You pushed me to explore new things, open my perspectives, and think critically. Thanks to your support and patience, I learned to challenge myself to face things I don't know. Jiaying, thank you for always being insightful and helpful, and especially for basically teaching me what statistical analysis is. I acquired many analysis skills that I had never even heard of thanks to you.

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Chapter 1: Introduction

1.1 Background

Justice negotiations on unequally distributed legacies are challenging. Like many other multigenerational issues, addressing climate change in a way that is fair for everyone has been difficult. Groups disagree on how to treat positive and negative legacies of activities that lead to climate change that are made with and without intention or knowledge. In order for justice negotiations to be more effective, we need to understand the basics: How do people view and treat legacies that are passed on? What are the differences among different cultural groups? Literature in this area is very scarce. Literature on cross-cultural perspectives on intergenerational legacies usually focus on how the older generations choose to pass inheritance onto the next generation rather than how the younger generations view the inheritance (Agree et al., 2002; Kohli, 2004; Ronald, 2000). Furthermore, although literature on collective guilt explore the perspective of the receiving side, it looks exclusively at negative legacies. These studies examine how current generations feel about the wrongdoings that their past generations committed, but do not touch on positive legacies (Brown et al., 2008; Čehajić-Clancy & Brown, 2014; Ferguson & Branscombe, 2010; Harvey & Oswald, 2000). It would be valuable to look at both positive and negative sides as a wide range of intergenerational justice issues today have both positive and negative impacts that need to be addressed. To our understanding, no existing literature has a focus on the particular topic of cultural differences in treatment of intergenerational legacies.

1.2 Research objectives

Our research objectives are to understand how people view and treat positive and negative legacies and to explore differences between different cultural groups. As analogies for positive and negative legacies, we use the concepts of inheritance and debts. Our research question is three-fold: (1) What factors determine the acceptance of intergenerational inheritance and debt? (2) How do these factors vary across cultures? and (3) What demographic variables are associated with acceptance? In this study, we systematically manipulated the following independent variables:

- Kinship

- Amount

- Methods of wealth accumulation

- Debt type

We measured the impact of these variables on the following five dependent measures:

- Acceptance of inheritance

- Change in acceptance of inheritance

- Acceptance of debt

- Change in acceptance of inheritance after learning about debt attached

- Debt settlement

Our hypotheses are the following:

- Amount affects the acceptance of inheritance.

- Kinship distance does not affect the acceptance of inheritance.

- Means of wealth accumulation does not affect the likelihood of inheritance acceptance.

- Amount affects debt acceptance.

- Amount affects the change in likelihood of inheritance acceptance due to the knowledge of debt.

- Amount and debt type do not influence debt payment.

In addition, we collected samples from Canada and Japan to identify cultural differences. We also collected data on demographic factors including gender and religion to explore their effects on acceptance. Past studies have shown that women are more likely to be uncomfortable with debt (Almenberg et al., 2018) and less likely to be over-indebted (Meyll & Pauls, 2019). Furthermore, there are a handful of studies conducted on the effect of religion on debt payment. Berggren (1997) found that religious involvement, in this case Christianity, decreases the rate of non-payment of debt. In addition, a master's thesis by Moraru (2012) suggests difference in debt payment between religions, where people of Islamic culture are more likely to be willing to pay off debt than those from Christian. Our study aims to revisit these findings comparing debt acceptance and repayment across Canadians and Japanese participants.

1.2.1 Selection of kinship, amount, and debt types as independent variables

We manipulated kinship relation as it is one of the important factors that determine one's legal right to inheritance. Shen et al. (2011) shows that there is a difference in the likelihood of accepting gifts based on how close people are in terms of their communal relationship. In particular, Asians are likely to refuse gifts from casual acquittances as they feel indebtedness and an obligation to reciprocate. This was not the case when the gift giver was a close friend or family.

Moreover, intergenerational legacies such as economic benefits of industrialization span over generations, and there is a greater distance between those who receive (i.e. current generation) and those who have created the legacies. We therefore used kinship distance to explore the effect of distance between the heir and the deceased.

Amount is also manipulated to explore its effect on willingness to accept an inheritance. It also has implication to debt payment. Livingstone & Lunt (1992) found that the amount of disposable money and the amount of debts are major factors of repayment of debts.

Finally, four debt types are explored in our study: employee, bank, unpaid tax, and environmental fund. These symbolize people who have helped create the wealth, a financial institution, government taxes, and a fund for protection or restoration of the environment. We are interested in examining whether people have different willingness to settle debts to these four categories. Payment to the environment in particular is of interest, as it is widely known that there is a gap between people's environmental actions and environmental beliefs (Kollmuss & Agyeman, 2002; Scott & Willits, 1994). We therefore explore this question as well by asking participants to answer a standard New Ecological Paradigm (NEP) survey (Dunlap et al., 2000).

1.3 Expected contributions

We hope this study contributes to existing literature in two ways. First, our study sheds light on the differences in the public's treatment of intergenerational legacies. Second, more specifically, our study adds to the body of literature on moral judgement of different cultures. Our study looks at how people from different cultures take into account of outcome and intent of an action that span over generations. Furthermore, we hope that this study gives insights to the cultural

differences prevalent in justice negotiations. By doing so, we hope that the study contributes to a better understanding of the challenges existing in justice negotiations.

1.4 Outline

This thesis is composed of five chapters. Chapter 1 explains the background, research objective and expected contribution. Chapter 2 reviews the relevant existing literature. Chapter 3 describes the methodology. Chapter 4 presents the results of our statistical analysis. Chapter 5 discusses our findings and their implications for justice negotiations. Finally, Chapter 6 presents the research's conclusions.

Chapter 2: Literature review

2.1   Treatment of legacies in climate change justice negotiations

The world we live in is full of legacies that are passed down from our ancestors. Legacies exist in different forms, from material goods and family traditions to infrastructure and institutions, as well as social, economic and environmental externalities. While many of these legacies are taken for granted, challenges arise in justice negotiations over treatment of legacies that have been accumulated at the expense of others or are not distributed equitably. One example of such negotiation is on the topic of climate change mitigation and adaptation. Climate change is a global, intergenerational issue that involves historical actions with enormous legacies of wealth for industrialized nations and amplified climate change impacts for all others. The carbon emissions over generations continue to generate positive and negative impacts on different parts of the world. In discussing actions towards climate change, the talk of justice becomes inevitable. Ideally, a negotiation would help address climate change in a way that is perceived to be fair by everyone. However, answering the question of "fair" treatment of past contributions to current and future climate change continues to elude negotiators.

Since the United Nations Conference on Environment and Development in Rio de Janeiro in 1992, the international normative consensus has been to recognize "Common but Differentiated Responsibilities and Respective Capacity (CBDR-RC)" which is a principle that recognizes that all countries are responsible for any global environmental problem but in different degrees according to their capacity and historical contribution (Friman & Hjerpe, 2015; United Nations General Assembly, 1992). Following CBDR-RC, it is agreed that developed countries should take more actions on climate change mitigation and adaptation because of their past emissions.

Developing countries should also contribute but not as much, as they have the right to development (United Nations General Assembly, 1992). Although this is intuitively reasonable and morally right, CBDR-RC fails to be actualized in concrete terms and apply uniformly due to the differences in the nations' understanding of their responsibility. In particular, two characteristics of climate change legacies make reaching consensus difficult:

1) positive and negative spillovers
2) intentionality / knowledge

2.2   Positive and negative spillovers

Climate change and its negative consequences are considered to be largely due to greenhouse gas (GHG) emissions that have increased rapidly since the Industrial Revolution in the 18th century. Industrialization, however, also has contributed to an improved standard of living around the world. Today, a large part of the world's economic development is associated with carbon emissions. Therefore, in a simple narrative, the positive side of emissions is economic development and the negative side is the social and environmental externalities. The historic and continuing distributional aspects of these two sides complicate the negotiations on climate change actions.

Generally, people argue that it would be unjust to ask both developed and developing countries to reduce carbon emissions at an equal level since the current wealth inequality is shaped by the differences in their historical emissions (Meyer, 2013). Everyone has the right to development and it cannot be dismissed. This led to softer requirements for developing countries and agreements on financial and technology transfers (Orellana, 2010). However, there are

opposing arguments from both practical and moral perspectives. From a practical point of view, people argue that some "developing" countries are major emitters and should not be exempted (e.g., China). From a moral point of view, scholars like Posner and Weisbach (Posner & Weisbach, 2010) argue that present-day citizens of developed nations should neither be blamed for, nor assume responsibility for, climate change since they were not involved in the past emissions. Yet, they are silent on the implicit positive legacy that these citizens enjoy due to these past actions. Perhaps if faced with a tradeoff of needing to accept both "a higher standard of living as well as a legacy of climate debt," Posner and Weisbach would not be quite as strident in their assertions. This study explores public perceptions of exactly such a trade-off.

2.3   Intentionality / knowledge

Another point that complicates the discussion is the fact that people in the past did not know about the negative consequences of GHG emissions. Arguments are divided on whether people should be blamed for things that they could not have known to cause harmful effects (Meyer, 2013; Posner & Weisbach, 2010).

Surveys conducted at COP in 2011 and 2012 demonstrate the gap between the Annex I and Non-Annex I countries on their interpretation of historical responsibility (Friman & Hjerpe, 2015). People are divided between the limited and the strict version of the proportional understanding of historical responsibility. The proportional understanding of historical responsibility takes different levels of past emissions into consideration. The limited version only looks at historical contributions since 1990, and is preferred by Annex I respondents. The year 1990 is considered as

the point at which the harmful effects of GHG emissions are confirmed.[1] In contrast, Non-Annex I respondents tend to acknowledge the strict interpretation and consider responsibility to begin before industrialization (Friman & Hjerpe, 2015).

The problems of the two characteristics discussed above resulted in ambiguous, altered understanding of CBDR-RC, leading successive climate accords skirting responsibility using exclusion (Annex B in Kyoto) and self-declared targets (Nationally Declared Contributions in Paris). Although economic and political interests play a role in these negotiations, the failure is at least partially due to cultural differences in norms regarding treatment of, and obligations to, legacies. The differences in these norms are critical in understanding the different stances that nations take in justice negotiations including climate change mitigation and adaptation.

2.4   Norms of obligations and judgement across cultures

Literature hints that there are differences in norms of obligation and attribution of blame across cultures. Three examples are illustrated below. These suggest that people from different cultures can have different bases for understanding and treating intergenerational legacies that are positive, negative, intentional and/or unintentional.

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[1] "The year 1990 was chosen as the baseline for the epistemic constraint, as it coincides with the release of the first Intergovernmental Panel on Climate Change (IPCC) assessment report, the base year for most countries with emissions reductions commitments under Annex B of the Kyoto Protocol (UNFCCC, 1998), and the UN General Assembly's mandate to start intergovernmental negotiations on the UNFCCC" (Friman & Hjerpe, 2015). 1990 also corresponds to a period of declining GHG emissions from former Soviet Block countries, allowing the Kyoto negotiations to "buy emission permits" from these countries, serving two objectives: a) to bribe these countries into the Kyoto Agreement, b) reduce the cost of mitigation obligations implicit in the targets and timetables accepted by EU, Japan and the US.

2.4.1 Inheritance laws

In societies with laws of Judeo-Christian origins, there are mainly two different types of inheritance succession: one of Common Law and the other of Civil Law. The inheritance laws in the Civil Law is based on the doctrine of universal succession, where the heir automatically inherits the entire estate, including debts. Heir has the choice of either inheriting both positive and negative inheritance, or to not accept any. In contrast, under Common Law, the estate is first passed onto an executor, representing the Will of the deceased, and undergoes a process of probate (Pelletier & Sonnenreich, 1966; Rollison, 1935). [2] Debts will not be inherited because the personal representative of a Will first settles all outstanding debts and the heirs inherit only what is left. When the sum is negative, the heir will not inherit and debts may not be settled in full (Rollison, 1935). These differences indicate how treatment of positive and negative legacies can differ at the societal level even where there are shared cultural routes.

2.4.2 Intention and outcome

Psychological literature on moral judgement of responsibility often discuss the importance of two factors: intentional and causal factors. The study by Cushman (2008) demonstrated that while intention determines the judgments of the moral wrongness of an action, the harm caused by

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[2] The difference in the inheritance systems in Common law and Civil law countries is linked to the power of the Church at least in Europe. Back in the Anglo-Saxon period, people made a death bed wish and there was no concept of an executor (Atkinson, 1943). Even when the Common Law developed during the reign of Henry II (1154-89), the power of the executor was just to ensure that the deceased's debt was paid off(Atkinson, 1943). However, the executors were usually clergymen, and the role of executor started to expand as the Church started to claim and profit from the intestate's goods(Uramoto, 1969). In other European countries such as France and Germany which now follow the Civil Law, the role of executor declined during the 13th century and afterwards due to growth of other legal systems' impacts such as the Roman law and the Napoleonic Code(Uramoto, 1969).

the action determines how much an actor deserves punishment. However, some studies show that people from different cultures weigh the intention and outcome of actions differently. Barrett et al. (2016) found that there is a cross-cultural variation in how much one values the actor's intent in moral judgment and punishment. Intention has a larger effect on moral judgment in Western societies than in non-Western small-scale societies (Barrett et al., 2016). Furthermore, McNamara et al. (2019) conducted a study on Yasawans (Indigenous iTaukei Fijians from Yasawa Island, Fiji) who follow "Opacity of Mind" norms. Opacity of mind norms assert that other people's mind can never be truly known. As a result, Yasawans tend to judge one's actions and attribute blame heavily based on outcome and focus less on intent.

2.4.3   Collectivist vs. individualist cultures

Attribution of responsibility also varies based on how collectivist or individualist the culture is. People from cultures with a collectivist orientation tend to see individuals as parts of a collective such as family and company, whereas people in individualist cultures perceive individuals as independent and less connected (Triandis, 1995). Therefore, people in collectivist cultures are likely to focus more on the external and collective, rather than internal and individual, process as determinants of social behavior (Triandis, 2001). In line with this, studies find that the collectivistic societies tend to take a greater consideration of situational factors like the roles and hierarchy, and focus less on the intentions of the individual actors (Hamilton et al., 1983; Hamilton & Sanders, 1992).

Moreover, people from collectivist cultures pay more attention to the agency of a collective than the agency of each individual compared to those from individualist cultures. Therefore, they are more likely to assign collective culpability, "the phenomenon of blaming the collective or its

members for a negative event caused by another member of the collective" (Manchi Chao et al., 2008). Studies found that East Asians, who are more culturally collectivistic compared to North Americans, tend to trace responsibility more to the group than to individuals who actually caused something (Manchi Chao et al., 2008; Menon et al., 1999; Zemba et al., 2006). This implies that people may have different perceptions of their role in treatment of collective legacies.

This review of literatures around our topic of study informed our survey design and factors that ought to be included in trying to capture willingness to accept intergenerational transfers of wealth and debt; the implications of intent and outcome in acceptance of bequests; nature of responsibilities to close kin vs. strangers; and whether and which inherited debts are settled.

Chapter 3: Methods

3.1 Survey or interviews

Two aspects of our research were important in determining the method we used for data collection. First, our study is exploratory in nature and it was crucial to gather rich data that can shed light on public perspectives of our motivating questions. Second, we wanted to explore any cross-cultural differences through recruiting participants in Canada and Japan. To the first point, interviews would be ideal as they allow us to engage in and dig deeper into each participant's lines of thought. However, statistical cross-cultural analysis demands large sample sizes, which is impractical with interviews. In order to accommodate both objectives, we employed an online survey with multiple points at which we invited participants to explain their reasoning in text form. Thus, we were able to both reach a larger pool of participants and gather insight into their reasoning using their own words explaining their choices.

3.2 Survey structure & cultural differences explored

The survey consists of two parts (see Appendix A). The first part asks about people's thoughts on intergenerational transfers. We asked participants how they would react and make decisions regarding inheritance and debt. Here, we had questions focused on factors of primacy interest to us, such as: kinship distance and means of wealth accumulation. We explored participant choices under different conditions. Each respondent is assigned one of the three inheritance amounts randomly in the survey: $5,000, $50,000, and $500,000. A Likert scale was used to measure the participants' likelihood of acceptance. The second part of the survey was used to collect standard

demographic data and the participants attitudes on environmental matters – the New Ecological

Paradigm (NEP).[3]

A key focus with this survey was to see whether culture plays a critical role in responses by

survey participants. Hence, we recruited participants in Canada and Japan. We ensured that the

survey instrument was as close as possible in forms of expression used in the two languages (See

Appendix A). However, we used different recruitment strategies for our two samples. So, in

analysis of the collected responses we need to also account for differences introduced by the

methodology used to recruit participants. In section 3.3 and 3.4, we explain how we recruited

participants and how our methodology aims to identify factors arising from differences in

recruitment methods.

3.3   Sample sizes and distribution

The survey was conducted through Qualtrics[xm], an online platform. After many generations of

pilot studies and survey revisions, a total of 639 responses was collected, of which 480 are from

Canada and 159 are from Japan (See Appendix B for the sample demographics).

The survey in Canada was distributed by Qualtrics[xm] to a representative sample of the

population using a small incentive (never more than CDN$ 7). The panel is representative of

Canada by gender and age. These responses were collected between December 5 & 10, 2019.

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[3] We used the four-item New Ecological Paradigm (See Dunlap et al., 2000 for the details about NEP,
and Zelenika et al. (2018) for the use of four-item NEP). The Japanese translation of NEP is adopted from
Sasaki (2016).

The Japanese participants were recruited using snowball sampling without any incentive. A survey link was distributed via email to friends and family who were encouraged to forward it to their acquaintances. These responses were collected between December 4 and 25, 2019.

Due to the differences in participant recruitment, the Canadian and Japanese sample differ in their socio-demographic characteristics and motivation(s) for participation. In order to be able to differentiate between these potential factors and any other factors that may impact responses (e.g. cultural factors) we created a matched pair of respondents from Japan and Canada based on gender, age, education, and income: C_m (n=93) and J_m (n=93). Differences between C_m and J_m identify factors that have, as far as possible, eliminated differences that could be due to the criteria used to match the sampled populations.

3.4 Analysis

In the analysis we differentiate hypotheses about cultural differences directly and other factors that may be shaping responses. The whole sample is tested using ANOVA, binomial logistic regression or Chi-squared for all hypotheses in the latter category. To test cross-cultural differences, we employ ANOVA, binomial logistic regression or Chi-squared on the matched samples. In addition, ANOVA and binomial linear regression are performed on the Canadian samples (C_m and the rest of the Canadian sample) to see if the findings of the matched Canadian sample is generalizable to the larger Canadian population. Finally, ANCOVA is performed on the whole sample to examine the potential covariance with demographic factors and to see the validity of our analysis. All of the tests mentioned here are operated using RStudio.

Chapter 4: Results

There are five dependent variables in our analysis: 1) acceptance of inheritance, 2) change in the likelihood of inheritance acceptance, 3) debt acceptance, 4) change in inheritance acceptance after learning about debt, and 5) debt settlement (payment). We are interested in the relationship between each of these variables and their relevant factors such as amount, as well as demographic and cultural differences. Therefore, for each of the five variables, except for change in inheritance acceptance[4], we conducted the following three analyses:

1. ANOVA or binomial linear regression (as appropriate for the dependent variable) on the whole sample of Canadian and Japanese participants

2. ANOVA or binomial linear regression on the matched samples to examine cultural differences

3. ANCOVA or binomial linear regression on the whole sample to explore covariance and validity of the analysis

To manage the flow of the chapter, we only show the results of the first and second analyses. Descriptive statistics are presented in Appendix C. Our results on the comparisons between the Canadian samples (C_m and the rest of the Canadian sample) showed that the two samples share the same patterns of variance for all variables we measured except for debt payment (see Appendix D). The results of the ANCOVA analysis are presented in Appendix E. We also asked respondents how they would allocate their inheritance and revisited this question after debts had

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[4] Since the answers of change in inheritance acceptance were sorted into multiple categorical groups, we ran chi-squared instead of ANOVA.

been paid. The results are not a focus of this thesis but presented for completeness in Appendix

F. In all the tables of statistical results presented in this chapter, * indicates p-value <.05, **

indicates p-value <.01, *** indicates p-value <.001.

4.1   Acceptance of inheritance

4.1.1   Does amount or kinship distance matter for acceptance of inheritance?
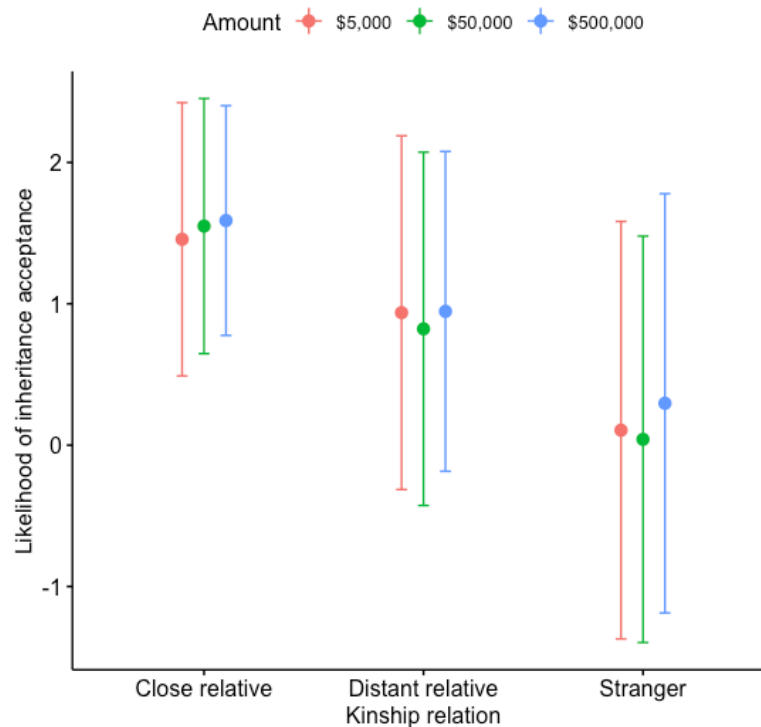
Figure 4.1 Acceptance of inheritance by amount and kinship
The x-axis presents three kinship relations between the deceased and the heir. On the y-axis, -2 to +2 represents a qualitative scale of acceptance from very unlikely to very likely. The responses are grouped by the amount of inheritance, which is represented by the three coloured lines. The plots demonstrate that the amount does not matter in the acceptance of inheritance (p=.36), but kinship distance does (p<.001). People are more likely to accept inheritance from those closer to them.

A two-way ANOVA (kinship x amount) showed that there was a main effect of kinship

[$F(2)$=420.26, p<.001, η_p^2=.18], but no main effect of amount [$F(2)$=1.02, p=.36, η_p^2=.002] or

interaction [$F(4)=1.46$, $p=.21$, $\eta_p{}^2=.001$]. This suggests that only kinship influenced inheritance acceptance. A post-hoc Tukey HSD test further showed that people were more likely to accept the inheritance from a close relative than from a distant relative [$p<.001$] or a stranger [$p<.001$]. They were also more likely to accept the inheritance from a distant relative than from a stranger [$p<.001$].

4.1.2 Culture and acceptance of inheritance
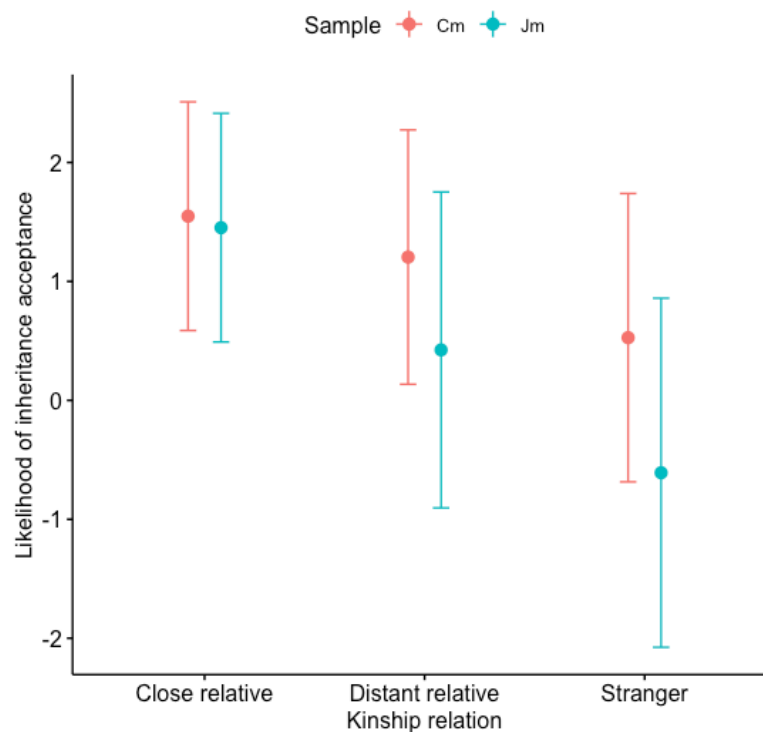
Figure 4.2 Acceptance of inheritance by kinship distance, matched samples
The x-axis consists of three kinship relations between the deceased and the heir. The y-axis represents a qualitative scale of acceptance from very unlikely to very likely (-2 to 2). The two colours represent the matched Canadian and matched Japanese samples. The plots demonstrate that Japanese are less likely than Canadians to accept inheritance from distant relative and stranger. The difference in acceptance of inheritance from a close and distant relative is significant at the $p<.001$ level among Japanese but not Canadians.

A three-way ANOVA (kinship x amount x culture) on the matched samples showed that there was a main effect of kinship [$F(2)=145.71$, $p<.001$, $\eta_p{}^2=.20$], culture [$F(1)=23.73$, $p<.001$, $\eta_p{}^2=.06$] and interaction between kinship and culture [$F(2)=16.57$, $p<.001$, $\eta_p{}^2=.02$], but no main effect of

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amount [$F(2)=0.09$, $p=.91$, $\eta_p^2=<.001$], interaction of amount and sample [$F(2)=0.26$, $p=.77$, $\eta_p^2=<.001$], interaction of amount and kinship [$F(4)=1.05$, $p=.38$, $\eta_p^2=.003$] or interaction of amount, kinship, and culture [$F(4)=1.37$, $p=.24$, $\eta_p^2=.004$].

This suggests that kinship and culture influenced inheritance acceptance, and the effect of kinship on inheritance acceptance differs between Canadians and Japanese. A post-hoc Tukey HSD test shows that Japanese are much less likely to accept an inheritance from a person farther from them in kinship relation than Canadians [$p<.001$]. Compared to the likelihood of acceptance from a close relative, Japanese are much less likely to accept inheritance from a distant relative [$p<.001$] or a stranger [$p<.001$]. In contrast, among Canadians, the difference in acceptance from a close relative and a distant relative was not significant [$p=.10$] (see also Figure 4.2).

Across all conditions of amount and kinship distance tested, except for the case of close relative at $500,000, Canadians are more likely to accept inheritance than Japanese.

4.2 Change in inheritance acceptance due to the knowledge of wealth accumulation

4.2.1 Do means of wealth accumulation change the likelihood of inheritance acceptance?

Having given their answers to whether kinship would impact their willingness to accept an inheritance, respondents are queried on whether the *means* to wealth accumulation would make a difference to their initial response. In order to test these hypotheses, we chose occupations that represents four methods of wealth creation that satisfied the 2x2 matrix of outcome (bad, good) and intention (yes, no). Table 4.7 reflects the four occupations and our classification into the outcome X intentionality matrix. For each occupation, we described the outcome associated with their occupation on the environment and whether the person had embraced these outcomes with

foreknowledge and intent (Table 4.7). We used climate-related externalities as outcomes except for the negative unintentional outcome. For the negative unintentional outcome, we used the loss of biodiversity, a negative unintentional externality of farming. This difference in the themes (climate and biodiversity) might have affected the results and this is one of the limitations of the study as will be discussed later.

All participants were asked if they would be more or less likely to accept inheritance from the four occupations: a coal mine owner, farmer, renewable energy inventor, and mathematician.

	Negative outcome	Positive outcome
Intentional/ Knowingly	Coal mine owner: *The deceased was a coal mine owner who knew fossil fuels cause climate change*	Renewable energy inventor: *The deceased was an inventor of renewable energy technology*
Unintentional/ Unknowingly	Farmer: *The deceased was a farmer who did not know agriculture harms biodiversity.*	Mathematician: *The deceased was a mathematician whose theory is used to track greenhouse gas emissions.*

Table 4.1 Four means of wealth accumulation in our survey

A two-way ANOVA (outcome x intent) showed that there was a main effect of outcome [$F(1)=134.67$, $p<.001$, $\eta_p^2=.07$] and interaction [$F(1)=4.86$, $p=.03$, $\eta_p^2=.003$], but no main effect of intent [$F(1)=1.56$, $p=.21$, $\eta_p^2=<.001$]. This suggests that the externalities (outcome) associated with wealth influenced inheritance acceptance but not intent. A post-hoc Tukey HSD test shows that people are less likely to accept inheritance if the wealth is associated with negative outcome, and more likely if it is associated with positive outcome [$p<.001$]. Additionally, it is suggested that the effect of intent on inheritance acceptance is dependent on whether the externality is positive or negative. However, a post-hoc Tukey HSD test indicates that the effect of intent is not significant at $p<.05$ level for either positive [$p=1.00$] or negative externalities [$p=.09$].

4.2.2 Culture and change in the likelihood of inheritance acceptance

A three-way ANOVA (outcome x intent x culture) on the matched samples showed that there was a main effect of outcome [$F(1)=50.74$, $p<.001$, $\eta_p^2=.08$] and interaction between outcome and culture [$F(1)=10.74$, $p<.01$, $\eta_p^2=.02$], but no main effect of intent [$F(1)=0.32$, $p=.57$, $\eta_p^2=<.001$], interaction of outcome and intent [$F(1)=0.21$, $p=.64$, $\eta_p^2=<.001$], interaction of intent and culture [$F(1)=0.87$ $p=.35$, $\eta_p^2=.002$] or interaction of outcome, intent, and culture [$F(1)=3.38$, $p=.07$, $\eta_p^2=.006$]. This suggests that outcome influenced inheritance acceptance, and the effect of outcome on inheritance acceptance differs between Canadians and Japanese. A post-hoc Tukey HSD test shows that the outcome matters for Japanese [$p<.001$] but not for Canadians [$p=.19$].

After the Likert scale question for each occupation, participants were asked if this additional information on means of wealth accumulation changes their willingness to accept the inheritance and invited to explain why. With the exception of a few inconsistencies, the answers to this question were categorized into seven groups (see Figure 4.3 and Table 4.12). The majority of people in both Canadian and Japanese samples said that they would still accept the inheritance after learning about the means of wealth accumulation. Although much less, there are people who continue to accept the money because they want to use it to help compensate for the damages the wealth had created. More of the Japanese participants answered that they would be less likely to accept after learning about the means of wealth accumulation, which is consistent with the ANOVA results. For most of the respondents who were not going to accept the inheritance anyway, the means of wealth accumulation had no effect on their decision. Only three people from the Canadian sample belong to the category 5. People in this category initially declined inheritance but decided to reverse that decision after learning about means of wealth accumulation in order to

take agency over correcting the damages that the wealth had created. People in the "Need more time" category include those who are unsure about what to do as well as those who said that their decision depends on the size of the impact associated with wealth. [5]
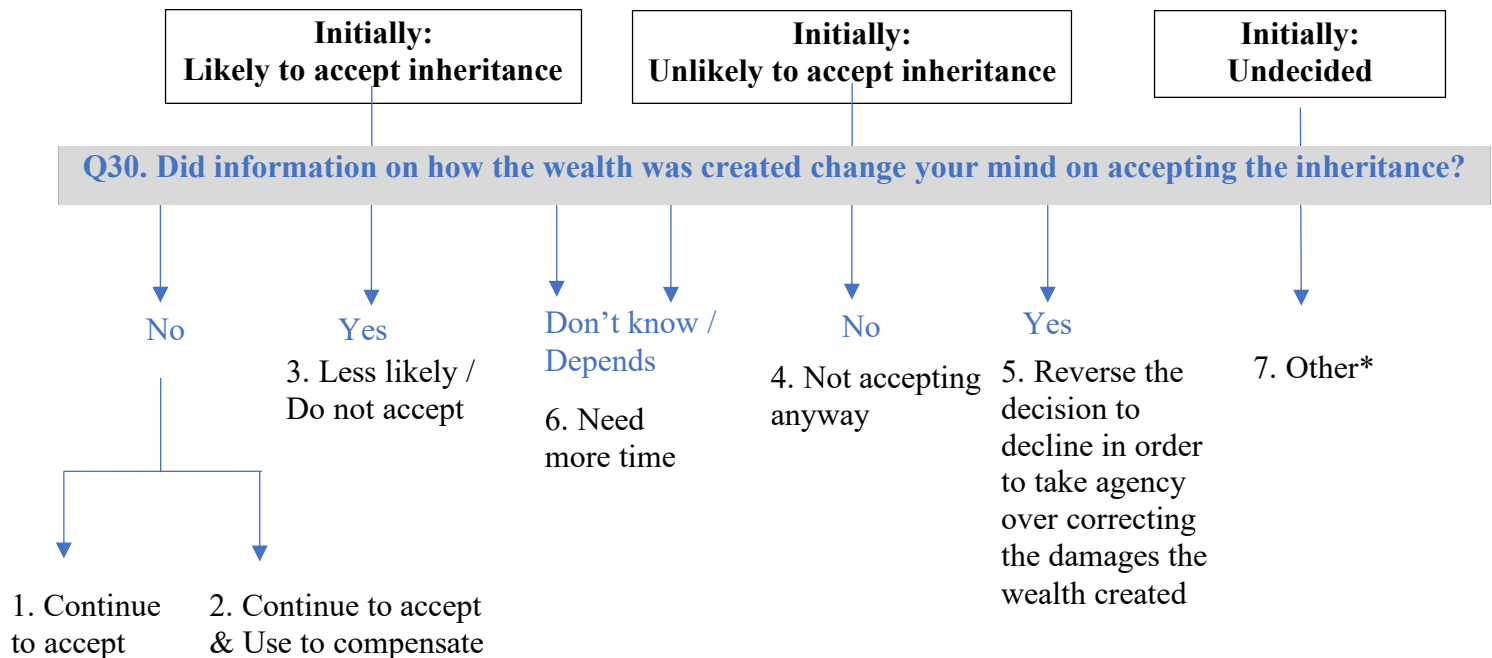
Figure 4.3 Did the means to wealth accumulation change your mind about accepting the inheritance?
The three groups at the top are the participants' initial decision on inheritance acceptance from a close relative. The arrows leading to the answers at the second level represent their decisions on inheritance acceptance after learning about means of wealth accumulation. Based on their answers, we created seven categories.

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[5] 5 people among Japanese participants said that their decision will do what the deceased wants them to do so they cannot make decision based on the limited information given in the survey: e.g. *"What's important the most is the will of the deceased (translated)".* These kinds of responses were not seen among the Canadian participants.

		All	C_m	J_m
1	Continue to accept	78.5	80.6	74.2
2	Continue to accept & Use to compensate[6]	4.1	5.4	2.2
3	Less likely / Do not accept	7.8	4.3	12.9
4	Not accepting anyways	3.0	3.2	3.2
5	Reverse the decision to decline in order to take agency over correcting the damages the wealth created	0.5	1.1	0.0
6	Need more time	4.4	2.2	7.5
7	Other[7]	1.7	3.2	0.0
	Total count	634	93	93

Table 4.2 Did the means to wealth accumulation change your mind about accepting the inheritance? (%)

4.3 Debt acceptance

After the section about inheritance, participants are introduced to a new wrinkle in their path through the survey. The following passage is presented to participants:

> *The lawyer sends you a box of papers left behind by the deceased. In their papers you find evidence of debts owed on past activities. <u>The debt is approximately **50%** of the inheritance.</u>*

In order to explore only the moral dimensions of debt acceptance & repayment (not any legal issues), we emphasized that acceptance of the inheritance does not impose a legal obligation on the participants to pay back these debts.

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[6] These are participants who explicitly mentioned about environmental damages. People who mentioned putting the money for "*good use,*" "*a good cause,*" and "*to better society*" are in Category 1. This distinction was made because we are interested in participants who care about environmental damage specifically.

[7] "Other" also includes participants who did not believe in the situation presented in the survey and participants whose answer to Q30 and their explanation for it were inconsistent.

Through the subsequent questions we explored participant reactions to how they would address: intergenerational debt, to whom it is owed, and its amount. Participants are also asked whether they would reconsider their decision about accepting the inheritance. From their explanations, we were able to categorize 1) whether respondents would pay debt or not (*"debt acceptance"*) and 2) whether respondents would accept the inheritance or change their mind and decline the inheritance (*"change in inheritance acceptance"*). We were able to also assess any differences between Canadian and Japanese participants.

4.3.1   Does amount matter for debt acceptance?

A binomial logistic regression on the whole sample indicates that amount is not a significant predictor of debt acceptance [$B = 0.28$, $z(2)=1.72$, , $S.E. = 0.16$, $p=.09$].

4.3.2   Culture and debt acceptance

A binomial logistic regression on the matched samples indicates that there are no significant effects of amount of inheritance [$B = 0.49$, $z(2)=1.14$, , $S.E. = 0.43$, $p=.26$] and culture [$B = 0.24$, $z(1)=0.70$, $S.E. = 0.34$, $p=.48$] on choices to accept debt by Canadian and Japanese participants.

4.4   Change in inheritance acceptance after learning about debt

Table 4.16 presents the percentage of participants by their decisions of inheritance acceptance before and after learning about debt. The left side of the arrow is their initial decision about acceptance of inheritance, and the right side indicates their decisions of acceptance after learning about debt. For example, participants in the "Yes -> Yes" category are those who continue

to accept inheritance even after learning about debt. The number of observations for categories other than "Yes->Yes" was too small to generate any meaningful statistical results in chi-squared test. The majority of people did not change their mind about accepting inheritance after learning about debts (Table 4.16).

	$5,000			$50,000			$500,000		
%	All	C_m	J_m	All	C_m	J_m	All	C_m	J_m
No -> No	4.0	2.9	0.0	3.3	3.6	5.4	2.5	0.0	0.0
No -> Yes	1.0	2.9	0.0	0.5	0.0	2.7	0.5	0.0	3.3
Yes -> No	8.5	2.9	26.1	9.0	0.0	18.9	3.5	0.0	20.0
Yes -> Yes	74.0	77.1	60.9	76.8	78.6	56.8	73.6	75.0	63.3
Yes -> Dk	8.5	11.4	4.3	6.6	17.9	8.1	15.4	20.8	13.3
Dk -> Dk	2.0	2.9	0.0	2.8	0.0	5.4	3.0	4.2	0.0
Dk -> No	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0
Dk -> Yes	2.0	0.0	8.7	0.9	0.0	2.7	0.0	0.0	0.0
Total count	200	35	23	211	28	37	201	24	30

Table 4.3 Would awareness about debts change your mind about accepting inheritance?
The left side of the arrow represents the participants initial acceptance of inheritance. The right side of the arrow represents acceptance of inheritance after learning about debt. "Yes" means people accepted the inheritance, "No" indicates people rejected the inheritance, and "Dk (don't know)" represents people who are undecided as to whether they accept inheritance or not.

4.4.1 Culture and the change in inheritance acceptance after learning about debt

Figure 4.4 shows the percentage of people who initially accepted inheritance from a close relative, how many of those people continue to accept inheritance after learning about deb, and how many of those are willing to pay off debt. As shown in the differences between the left and middle bars of Canadians and Japanese, Japanese are much more likely than Canadians to decline the inheritance once they realize there are debts attached (also shown in Table 4.16, where there more Japanese are in "Yes -> No" than Canadians). According to chi-square test, this was statistically significant at $p<.001$ with a chi-square statistic of 17.44.
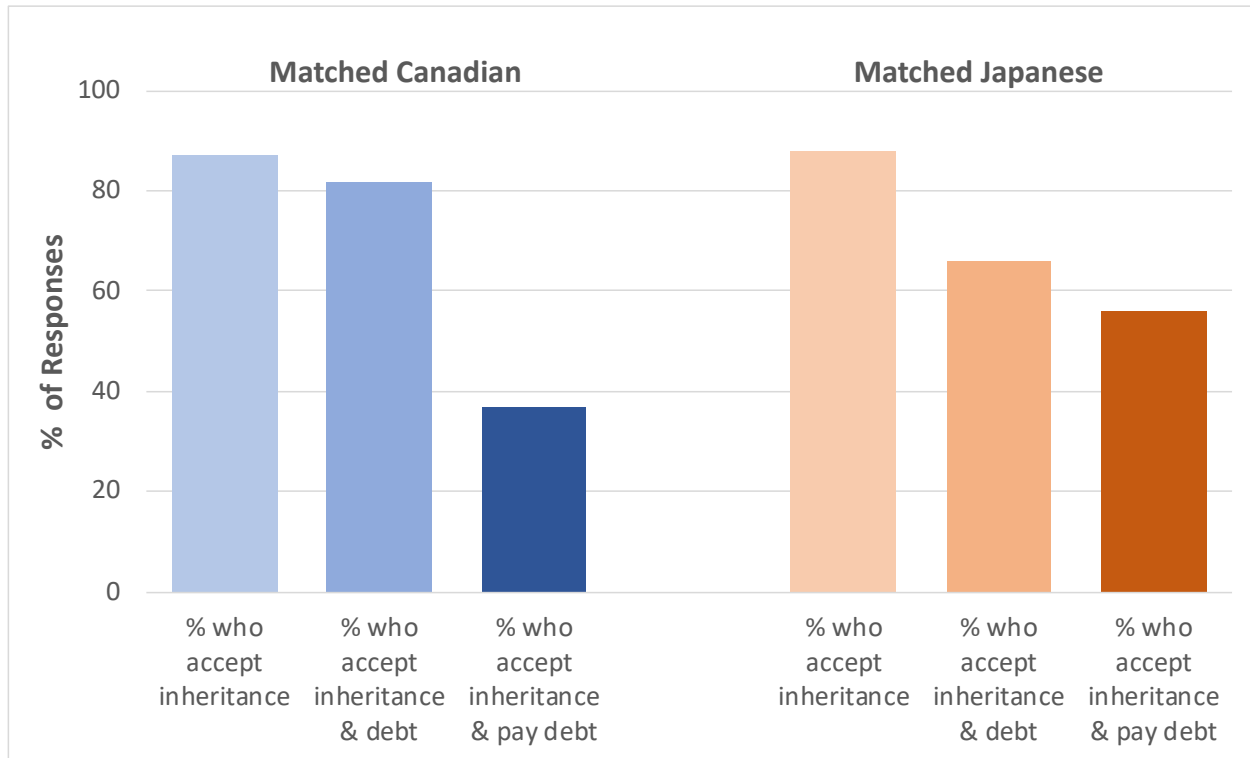
Figure 4.4 Change in the acceptance of inheritance from a close relative and willingness to pay debt
The bars on left show the percentage of people who accepted inheritance from a close relative when they were asked in the beginning of the survey. The bars in the middle represent the percentage of people who continued to accept inheritance even after learning about attached debts. The bars on the right represent those who continued accepted the inheritance and are willing to settle debt.

4.5   Debt settlement (payment)

4.5.1   Does amount and debt type matter for debt payment?

A two-way ANOVA (debt type x amount) showed that there was a main effect of debt type $[F(3)=101.84, p<.001, \eta_p^2=.14]$ and amount of inheritance $[F(2)=4.82, p=<.01, \eta_p^2=.01]$, but no main effect of interaction $[F(6)=1.19, p=.31, \eta_p^2=.003]$. This suggests that debt type and amount both influenced inheritance acceptance, but not their interaction. A post-hoc Tukey HSD test further showed that employee is paid more than the other three $[p<.001]$ and environmental fund

is paid less than the other three [$p<.05$]. Moreover, debt payment is higher when the inheritance is $500,000 compared to when it is $5,000 [$p<.01$].

4.5.2 Culture and debt payment

A three-way ANOVA (debt type x amount x culture) on the matched samples showed that there was a main effect of debt type [$F(3)=32.08$, $p<.001$, $\eta_p^2=.14$], amount [$F(2)=4.37$, $p<.05$, $\eta_p^2=.04$], culture [$F(1)=39.98$, $p<.001$, $\eta_p^2=.17$] and interaction between debt type and amount of inheritance [$F(6)=3.37$, $p<.01$, $\eta_p^2=.03$], but no main effect of interaction of amount and culture [$F(2)=1.35$, $p=.26$, $\eta_p^2=.01$], interaction of debt type and culture [$F(3)=2.51$, $p=.06$, $\eta_p^2=.01$] or interaction of debt type, amount and culture [$F(6)=1.52$, $p=.17$, $\eta_p^2=.01$].

This suggests that debt type, amount of inheritance and culture influenced inheritance acceptance, and the effect of debt type on inheritance acceptance differs by amount of inheritance. A post-hoc Tukey HSD test shows that Japanese settle higher portion of debt than Canadians [$p<.001$] and employees are much more likely to be paid back debt than the other three groups [$p<.001$] (see also Figure 4.5). It was also the case that people settle larger portion of debt when the inheritance was $500,000 compared to when it was $5,000 [$p<.05$]. Finally, the percentage of debt payment to employee was significantly higher than the other three in case of $5,000 [$p<.001$], while it was only higher compared to environmental fund in case of $50,000 [$p<.05$] and to bank and environmental fund in case of $500,000 [$p<.05$].
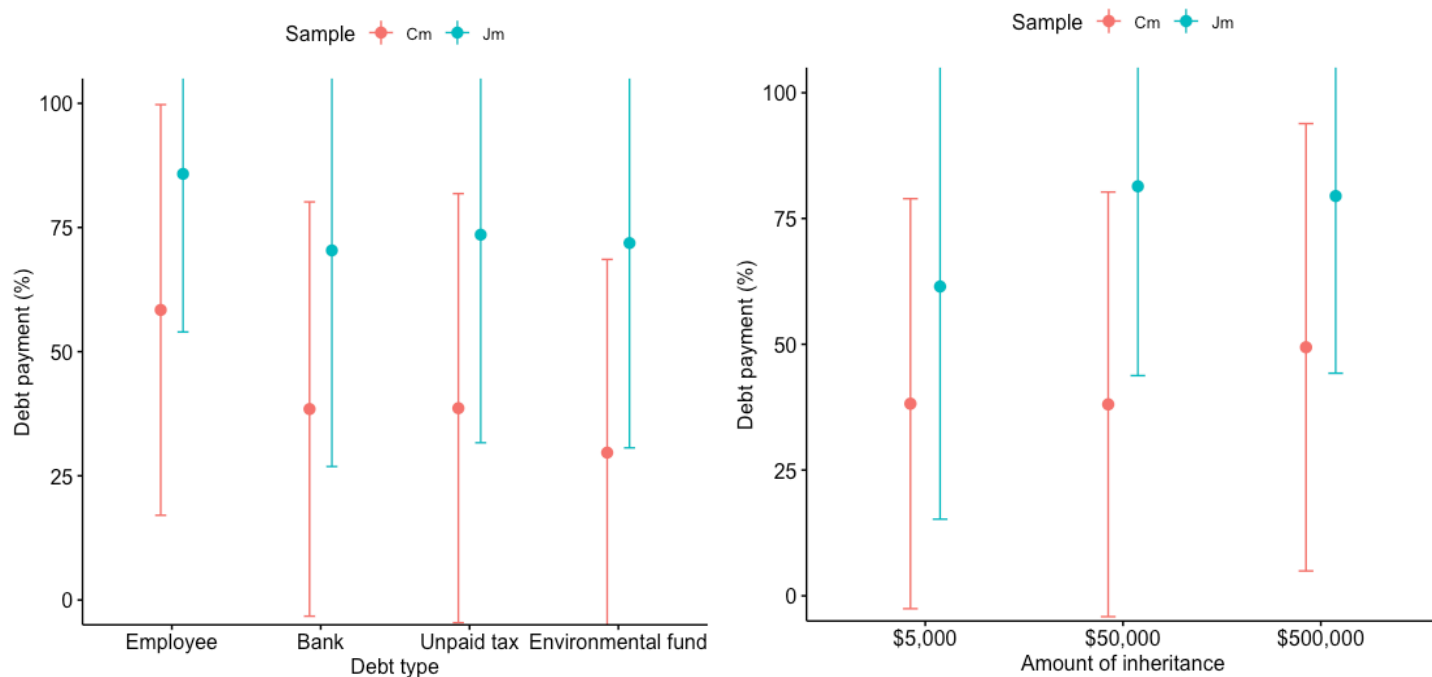
Figure 4.5 Debt repayment (%) by debt type (left) and inheritance amount (right), C_m & J_m
The x-axis consists of four different types of debt (left) and three amounts of inheritance (right). The y-axes represent the percentage of debt repaid. The two colours represent the matched Canadian and matched Japanese samples. The plots on the left demonstrate that in both Japanese and Canadian samples, employee gets paid back the most ($p<.001$). The plots on the right indicate that people are more likely to pay back larger proportion of debt if the inheritance was $500,000 than when it was $5,000 ($p<.05$).

Chapter 5: Discussion

Everything around us is essentially legacies from past generations, made with positive and negative consequences. This study explores intergenerational transfers and obligations through examination of the general public's treatment of inheritance and debt. We explore whether people accept inheritance and/or debt, from whom, on what conditions, and why. We further examine if cultural background impacts how legacies are perceived. Our findings will hopefully provide constructive insights for international justice negotiations involving historic legacies.

Our results indicate that there are cultural differences in regard to treatment of inheritance and debt. Five points in particular yield clear answers to our motivating questions: How do people treat positive and negative legacies? What are the differences between Japanese and Canadians?

1. Canadians are more likely to accept inheritance than Japanese, and care less about positive and negative externalities.
2. Intent does not matter.
3. Japanese are more likely than Canadians to decline inheritance when debts are attached.
4. Japanese are more likely to settle a larger proportion of debts than Canadians—regardless of the type of debt.

Additionally, the findings from covariance analysis are discussed with focus on gender, religion, and environment. Implications of these findings and limitation of the study are presented at the end.

5.1   Canadians are more likely to accept inheritance than Japanese, and care less about positive and negative externalities.

Our results demonstrate that across almost[8] all conditions of amount of inheritance and kinship distance tested, Canadians are more likely to accept inheritance (71% likely or very likely to accept) than Japanese (53%). Moreover, when asked if they are more or less likely to accept inheritance after learning how the wealth was created, fewer Canadians indicated that they would change their mind regardless of negative or positive externalities associated with how the legacy was created. Canadians pay less attention to externalities and are more likely to accept the inheritance compared to Japanese.

The reasoning common among both Canadians and Japanese is: *"[h]ow the money was earned has nothing to do with an inheritance"* and *"I don't care."* However, we can see differences between Canadians and Japanese in other explanations of their reasoning about acceptance of a legacy with negative externalities and how they would use the legacy. First, among those who said they would accept, some said they would put the money to help fix or compensate for the damages the wealth had created: *"I can use the money to change their mistakes."* Some people also explained that they would increase their donation to charity related to environmental/climate protection, or use the money in an environmentally friendly way, such as *"to improve my own carbon footprint."* These types of answers were 5.4% for Canadians compared to 2.2% for Japanese. Second, more Japanese said they felt less likely to accept when the inheritance is associated with negative consequences. The reason includes that they do not

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[8] Except for the case of close relative at $500,000, however, this could be due to a larger number of Japanese participants being offered that amount in the randomized trial.

want *"dirty money"* and they would *"feel guilty if the money was made for socially unacceptable reasons. (translated)"* This was the case even after controlling for NEP. To conclude, among the small number of people who care about how the wealth is made, Canadians and Japanese's reactions differ: more Canadians decided to accept the money and use it for compensation, while more Japanese people rejected the inheritance. Japanese were also three times more likely to state that they needed more time to consider how positive/negative externalities and intent would impact their decision-making.

5.2   Intent does not matter

Among neither Canadians nor Japanese, intent behind the creation of wealth mattered. This finding is in contrast to past studies that found that intent is a strong part of how North Americans judge someone's actions (Barrett et al., 2016; McNamara et al., 2019). The participants' explanations help us unravel this surprising result. Some themes can be identified in the participants' reasoning for why they do not care about the means of wealth accumulation. First, some people emphasize that they were not involved in the money-making: *"I am not responsible or accountable to how another gains financially, I would see the amount as simply an amount provided for my choices."* Second, people claim that past cannot be changed and what is important is what to do now: *"What is done is done. How I spend it will matter to me."* The third theme is appreciation for the deceased's decision. People don't want to waste the decision of the deceased about bequeathing them the money. Finally, a few mentioned specifically about their relationship to the deceased emphasizing that their *"tie to the deceased is more important than how the money is accumulated. (translated)"*

These themes point to the fact that participants are not outsiders judging the deceased's action. In the past studies on intent, the participants were presented with a scenario with someone else's action to which they made their judgements (Barrett et al., 2016; McNamara et al., 2019). Since participants in our study is connected with the deceased through inheritance, they are not completely isolated from the people or actions they are judging.

These themes also imply that participants place more importance on what they can do now. As opposed to past studies where individual actions has an immediate and limited influence, the participants recognize that the actions are already committed, and that they have to face consequences anyway. This might be making the intent behind actions less irrelevant.

The other explanation would be that since participants are making decisions on receiving or not receiving money, the criteria for judgement softens. A number of people said they are actually more likely to accept the money because it feels better when you know the money came through good means while not expressing anything about the money associated with negative environmental impacts.

5.3   Japanese are more likely than Canadians to decline inheritance when debts are attached.

Our results also reveal that Japanese participants are much more likely than Canadians to decline the inheritance once they become aware of debts attached to the inheritance. For the few Canadian participants who said they would decline inheritance, the reason was that they simply do not like the idea of having debts. They *"would not want to inherit debts"* and *"do not want debt to be a part of [their] history."* Although such comments are also seen among Japanese respondents, they were a minority. Instead, Japanese participants said they would decline the

inheritance altogether because they do not want to get in trouble when having to deal with debts. Their reasoning was not that they do not want debt, but that they fear the potential conflict with other people, including other relatives, acquittances, and the creditors. One person described their motivation by saying *"[e]ven though I'm not legally obligated, I do feel that I want to pay back. However, I also feel that I do not want to get in unnecessary trouble, so I'd choose not to accept the inheritance (translated)."* Another common reason was the possibility of finding more debts. Trust with the deceased seems to be an important factor among the Japanese respondents. One said *"I cannot accept inheritance if I don't know how the person lived. (translated)."* The fact that they did not get the information about debts until later made them more suspicious and wary of the inheritance. This resonates with the results on kinship distance, where Japanese were much less likely to accept inheritance from a distant relative or a stranger than Canadians. Moreover, it is also consistent with other studies on collectivist and individualist cultures (Hamilton et al., 1983; Hamilton & Sanders, 1992; Triandis, 1995, 2001). Since the Japanese have a more collectivist culture than Canadians, it makes sense that Japanese care more about their relationship to the deceased. Receiving inheritance is more than just a personal decision as it may influence their reputation and their relationship with people around them.

A note should be made on the difference in the legal handlings of estate in Canada and Japan. In Canada, the deceased's estate is entrusted to an executor who settles the deceased's debts, identifies all heir(s) and distributes the net assets —it is impossible to inherit debts. However, in Japan the process of probate does not exist and there is a chance that you get debts attached to inheritance unless you renounce the right of succession. People have a choice to not receive inheritance or to accept both debts and inheritance. In this sense, Japanese are more accustomed to the possibility of having to deal with debts or declining inheritance. In contrast, Canadians feel

the obligation to deal with the debts lies with the executor and the probate procedures limits their liabilities. Although we specified in our survey that participants are not legally obligated to pay debts, the way people think is still influenced by the legal system of their country. Our results show that the cultural difference exists even among younger people who would be less likely to have experienced succession.

5.4   Japanese settle a greater fraction of all debts

When participants were asked how much they are willing to pay to settle debts, Japanese paid significantly more than Canadians. The average of repayment for four debt groups was 41% among Canadians and 75% among Japanese. The payment was higher for all of the four debt types: employee, bank, tax, and environmental fund. The majority of people who would pay debt explained that *"[i]t is the right thing to do."* People also emphasize that they would settle debts because they can still get half of the money. People said that *"half is still better than nothing"* and *"[a]s long as I'm $$ ahead it doesn't matter."* It should also be noted that those with higher reported income were more likely to pay a higher fraction of debts outstanding. Therefore, it might be the case that some participants were not able to completely separate the survey's scenario from their real-life situation, even though the survey specifically asked participants to assume that their financial needs were met. This explains the trend that payment was higher when the inheritance was larger.

One cultural difference in terms of explanation was that Japanese more frequently mentioned how they want to pay off the debt for the deceased's sake. For example, *"settling the debts would clear the deceased's name (translated)"* and *"sorting out the inheritance does good for the deceased also (translated)."* Only one Canadian participant mentioned such motivation:

"It's only right that we do, so that he can rest in peace knowing everything is taken care of." This resembles the findings of studies on collectivist and individualist cultures, where people from individualist cultures are more independent while collectivist cultures see themselves as connected with others (Triandis, 1995).

It is important to acknowledge that the concept of debt has a stronger negative implication in Japan. According to Martin (2005), bankruptcy in Japan is associated with personal shame and failure rather than mere business failure. Since people are expected to work in the same company for life, losing a job has a strong stigma. Debts and bankruptcy are considered shameful to the point where some individuals commit suicide or withdraw from their community. A survey conducted in Japan showed that 78% of people had strong or weak obsession of savings and 87% had strong or weak debt aversion (Tsukahara & Matsuzaki, 2008). It was also the case that people were unwilling to borrow, even when it could be profitable. This explains why Japanese people settle a substantially larger fraction of debts and are more likely to decline an inheritance when debts are attached.

5.5   Gender & Religion, and Wealth & Environment

The analysis on debt payment and its covariance with demographic factors also yields interesting findings. First, women are much more likely than men to pay off debt. The average payment of debt was 50% for women and 40% for men. Second, Non-Judeo-Christians are also more likely than Judeo-Christians to pay off debt, where the average was 58% for Non-Judeo-Christian and 37% for Judeo-Christians.

Finally, settlement of debts to the environmental fund lagged all other types of debt and was associated the most strongly with amount of inheritance. People who accepted larger

inheritances were more likely to settle a greater fraction of debt owed to the environmental fund. This is an observation that stands in support of past studies that people consider the environment to be a luxury good (Martínez-Alier, 1995) and in contrast to those showing an income elasticity close to 1 and falling with rising income (Martini & Tiezzi, 2014).

5.6   Implications

The above discussion is indicative of significant cultural differences in how people treat positive and negative legacies. In particular, there is a clear asymmetry in reactions to inheritance and debt: Canadians accept inheritance from strangers while Japanese do not. Canadians choose not to settle debts associated with their inheritance but Japanese do. Moreover, Canadians tend to accept a positive legacy without accepting the responsibility to settle attached negatives, while Japanese are more likely than Canadians to decline inheritance and debt altogether. Since our study is exploratory, it did not directly deal with the exact type of legacies dealt in intergenerational justice negotiations. Those legacies differ from inheritance and debt in the sense that they are not just a transaction between two generations, but are embodiments of multi-generational transfers of both tangible and intangible things. Although we asked about kinship relation in order to explore the effect of distance between the heir and the deceased, legacies dealt in justice negotiations usually cannot be traced to a single identifiable person. Nonetheless, the results of our study have three key findings for justice negotiations.

- Our study demonstrates significant cultural differences in the acceptance of legacies. This may indicate that groups engaged in intergenerational justice negotiations may not share a common understanding of the notion of "historical fairness".

- Second, Canada and Japan are both industrialized countries which tend to claim that the lack of foreknowledge of harmful effects of GHG emissions should be taken into account when attributing responsibility for climate change. However, our results show that intent does not matter for either group of participants. In such case, the year 1990, which is used as a base year for emission reduction, is arbitrary and should be negotiable.

- Third, we found cultural differences in the willingness to pay off debts. This suggests that the cultural background of negotiators influence the decisions on compensations. Therefore, if a host or chair of a negotiation plays a critical role in how climate impacts are compensated, then the impacted countries should seek the negotiations to be held in a more favorable setting.

Additional research is needed in order to assess cross-cultural expectations about compensation to further inform future negotiations.

5.7   Limitations

This study has several limitations, including:

- We have different recruitment methods for Japanese and Canadian samples. Since the incentive is provided for Canadians but not for Japanese, Canadian participants might be more likely to be financially in need or motivated. This can influence their answers as the survey asks about wealth and debt. Although we tried as much as possible to control for the difference by using matched samples, and by controlling for income and education, it is still a possibility that the results are influenced.

- Criteria used for making matched samples is gender, age, income, and education. Therefore, the samples differ in the ratio of assigned amount and NEP.

- The participant recruitment windows were different for the Japanese and Canadian samples. It was between December 5 and 10, 2019 for Canadians, and December 4 and 25, 2019 for the Japanese. We do not know of any major events that may have provided a different socio-economic context to participants' answers but cannot be sure that is so.

- Of the four means of wealth accumulation used in the survey, three were climate-related and one was about the loss of biodiversity. This decision was made because there is an increasing awareness of biodiversity loss and yet there is general ignorance of the negative role of farming. We did not use any activities that have negative climate impacts because it is difficult to claim that they are done unintentionally. Often the negative impacts are well known to public, too complicated or controversial.

- The payment to environmental fund could be interpreted by participants as protective action or a fine. Depending on the interpretation, participants can reach different decisions on how much to pay to environmental fund. Since we did not ask participants to elaborate on their decisions on debt payment specifically for each debt type, we cannot account for this difference.

Chapter 6: Conclusion

Legacies passed down from generation to generation, both positive and negative, make up the world we live in. As evident in many justice negotiations such as climate change, groups face challenges in dealing with legacies that are unequally distributed. In order to better understand the difficulties associated with treatment of legacies, this thesis explored the acceptance of positive and negative legacies in Canada and Japan, using an analogy of inheritance and debt. Our results revealed strong cultural differences in the treatment of positive and negative legacies. This indicates the possibility that these differences play some part in the persistent failure to arrive at mutually satisfactory outcomes in justice negotiations on historical issues. Perhaps the findings herein can help reframe such negotiations in a language that accounts for cultural differences in treatment of legacies more explicitly.

Furthermore, our analysis also demonstrated that people are more likely to settle a greater fraction of debt if they are women, non-Judeo-Christian and younger. So, perhaps negotiations could be more successful if delegations are not dominated by older, Judeo-Christian males.

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Appendices

Appendix A Survey questions and translation

The survey on the left is the original survey distributed to the Canadian participants. The survey on the right is the Japanese survey translated back to English by a bilingual speaker. We reviewed the two surveys and found no significant difference, except for in the education question in the demographic section. In order to accommodate for the difference, professional and technical certificate was coded as 4 (beyond university) and vocational college was coded as 2 (below university level).

Transgenerational Responsibility

There are two parts to this survey.

Part 1 explores your perspective on inheritance and debt.

Part 2 asks questions about you.

We are very much interested in how you would address these hypothetical questions in the real world.

So, please be as honest as possible in your answers.

Inheritance

Suppose all your expected financial needs are already met. A trusted lawyer calls to inform you that you have been left an inheritance of USD $5,000/$50,000/$500,000 . If you don't accept it, it will go to beneficiaries unknown to you.

Q1. *For each relationship to the deceased please indicate the likelihood of accepting the inheritance:*

Intergenerational Responsibility

This questionnaire is composed of 2 parts.

Part 1 is questions on how you think about inheritance and debt.

Part 2 is questions about yourself.

Please tell us how you would respond to the following situations.

Please answer your thoughts and actions as honestly as possible.

Inheritance

Suppose all your financial needs are met. One day, you had been notified by a trustworthy lawyer that inheritance of [$5,000/$50,000/$500,000] is left to you. If you do not accept the inheritance, somone you do not know will claim it.

Q1. *Answer the likelihood of accepting the inheritance when your relationship with the deceased person is following.*

	Very likely (1)	Likely (2)	Don't know (3)	Unlikely (4)	Very unlikely (5)
The deceased was a close relative (1)	○	○	○	○	○
The deceased was a distant relative (2)	○	○	○	○	○
The deceased was a stranger (3)	○	○	○	○	○

Q2. If you were to accept the inheritance, how would you use it? Please indicate the % in each category. The total has to add to 100% of the inheritance.
Use for personal savings / spending : _____ (4)
Give to family members : _____ (5)
Giev to charity : _____ (6)
Other, please explain : _____ (7)
Total : _____

	Very likely (1)	Likely (2)	Don't know (3)	Unlikely (4)	Very unlikely (5)
Close relative (1)	○	○	○	○	○
Distant relative (2)	○	○	○	○	○
Stranger (3)	○	○	○	○	○

Q2. Assume that you have accepted the inheritance. How do you use the inheritance? Fill in the blank below in percentage (%). Please make sure that the total becomes 100%.
Personal use (Savings, consumption etc.): _____ (4)
Give to family: _____ (5)
Donate : _____ (6)
Other, please explain : _____ (7)
Total : _____

Wealth Accumulation

Q3. *This question asks if you care about how the wealth was created. Please indicate if you are more likely or less likely than before to accept the inheritance based on how the deceased grew rich .*

	More likely (1)	No change (2)	Less likely (3)	Don't know (4)
The deceased was a coal mine owner who knew fossil fuels cause climate change (1)	○	○	○	○
The deceased was a farmer who did not know agriculture harms biodiversity (2)	○	○	○	○
The deceased was an inventor of renewable energy technology (3)	○	○	○	○

Formation of wealth

Q3. *This question asks your thoughts on how the deceased person's wealth was produced. Answer whether you are more or less likely to accept the inheritance in the following different formations of wealth.*

	More likely (1)	No change (2)	Less likely (3)	Don't know (4)
The deceased had a coal mine, and knew the effect of fossil fuels on environment (1)	○	○	○	○
The deceased lived as a farmer without knowing that agriculture has a bad effect on biological diversity (2)	○	○	○	○
The deceased was an inventor of renewable energy technology (3)	○	○	○	○

| The deceased was a mathematician whose theory is used to track greenhouse gas emissions. (4) | ○ | ○ | ○ | ○ |

Q4. Did awareness of how the wealth was created change your mind about accepting the inheritance?

○ No (1)

○ Yes (Please explain your reasoning.) (2)

_____

Intergenerational debt

The lawyer sends you a box of papers left behind by the deceased. In their papers you find evidence of debts owed on past activities. <u>The debt is approximately **50%** of the inheritance</u> (Remember, this person has left you USD$_____). The deceased did not break the law in incurring these debts, and you are not legally obligated to pay them.

| The deceased was a mathematician who invented a theory that was applied to tracking greenhouse gases. (4) | ○ | ○ | ○ | ○ |

Q4. Does formation of wealth affect your decision on accepting the inheritance?

○ No (1)

○ Yes (Please explain a reason.) (2) _____

Debt

The lawyer sent you documents that the deceased person left. In the documents, you find a record about debts the deceased person had. <u>The debt is approximately **50%** of the inheritance (The deceased left you _____ yen).</u> The debt does not have any illegality and also you do not have an obligation to pay the debt.

Q4. Would awareness about the debts change your mind about accepting the inheritance?

    ◯ No (1)

    ◯ Yes (Please explain your reasoning.) (2)

_____

Q5. Let us assume you accepted the inheritance, and that 50% of it is owed to four groups of creditors in equal proportion. What percentage, if any, of the amount owed to each group would you pay off?
Please move the sliders below to indicate the level of debt you would pay off.

	None	Half	All (%)
	0 25 50 75 100		
Debt to employees			
Debt to bank			
Unpaid taxes			
Pledge to an environmental restoration fund			
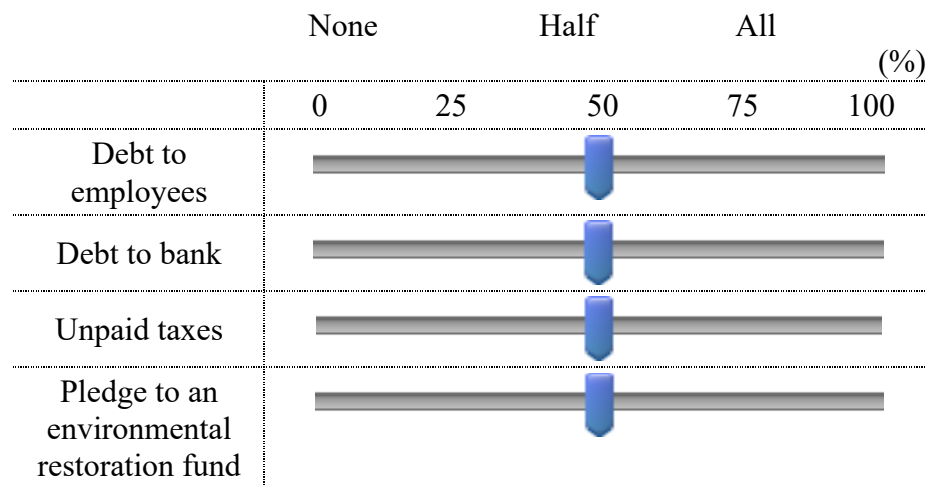
Q4. Would you change your mind about accepting the inheritance after knowing about the debt?

    ◯ No (1)

    ◯ Yes (Please explain your reasoning.) (2)

_____

Q5. Assume that you acepted the inheritance and 50% of the inheritance is money borrowed equally from 4 lenders. How much money do you pay back to each lender?
Please slide the bar below to indicate how much money you would pay back.

	None	Half	All (%)
	0 25 50 75 100		
Debt to employees			
Debt to bank			
Unpaid taxes			
Fund to an environmental protection fund			
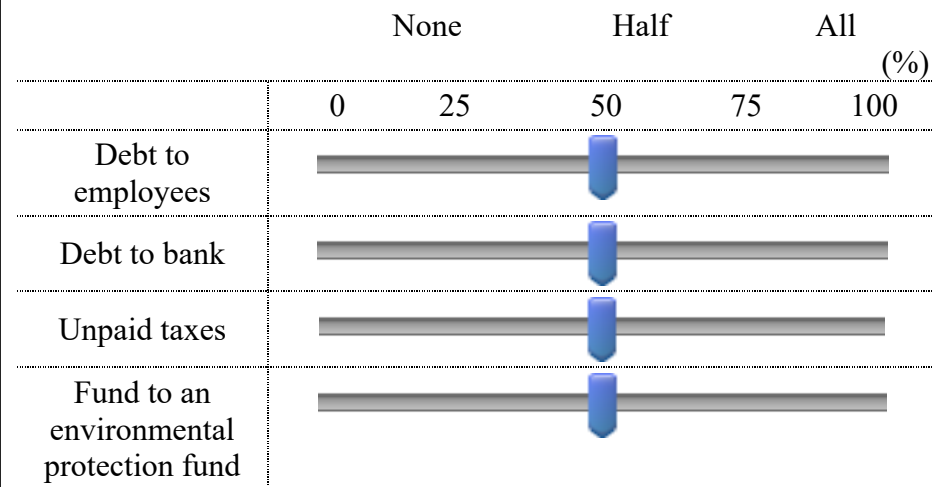
Q6. Would paying the debts change how you allocate the remaining inheritance?

    ◯ No (1)

    ◯ Yes (Please explain.) (2)

    _____

Part 2: Demographic questions

New Ecological Paradigm (NEP)

Q7. Listed below are statements about the relationship between humans and the environment. For each one, please indicate whether you STRONGLY DISAGREE, MILDLY DISAGREE, are UNSURE, MILDLY AGREE or STRONGLY AGREE with it.

Q7-A. Humans are severely abusing the environment.

    ◯ Strongly disagree (1)

    ◯ Mildly disagree (2)

    ◯ Unsure (3)

    ◯ Mildly agree (4)

    ◯ Strongly agree (5)

Q6. After you paid the debt, would you change how you allocate the rest of the inheritance?

    ◯ No (1)

    ◯ Yes (Please explain how it changes.) (2)

    _____

Part 2: Demographic questions

New Ecological Paradigm (NEP)

Q7. Listed below are statements about the relationship between humans and the environment. For each one, please indicate whether you STRONGLY DISAGREE, MILDLY DISAGREE, are UNSURE, MILDLY AGREE or STRONGLY AGREE with it.

Q7-A. Humans are severely abusing the environment.

    ◯ Strongly disagree (1)

    ◯ Mildly disagree (2)

    ◯ Unsure (3)

    ◯ Mildly agree (4)

    ◯ Strongly agree (5)

Q7-B. The "ecological crisis" facing humankind has been greatly exaggerated.

   ○ Strongly disagree (1)

   ○ Mildly disagree (2)

   ○ Unsure (3)

   ○ Mildly agree (4)

   ○ Strongly agree (5)

Q7-C. The earth is like a spaceship with very limited room and resources.

   ○ Strongly disagree (1)

   ○ Mildly disagree (2)

   ○ Unsure (3)

   ○ Mildly agree (4)

   ○ Strongly agree (5)

Q7-D. If things continue on their present course, we will soon experience a major ecological catastrophe.

○ Strongly disagree (1)

○ Mildly disagree (2)

○ Unsure (3)

○ Mildly agree (4)

○ Strongly agree (5)

Demographics

Q8. Gender

○ Woman (1)

○ Man (2)

○ Other (3)

○ Prefer not to answer (4)

Q9. Age (please enter your years of age)

_____

Q7-D. If things continue on their present course, we will soon experience a major ecological catastrophe.

○ Strongly disagree (1)

○ Mildly disagree (2)

○ Unsure (3)

○ Mildly agree (4)

○ Strongly agree (5)

Demographic statistics

Q8. Gender

○ Woman (1)

○ Man (2)

○ Other (3)

○ Prefer not to answer (4)

Q9. Age (Enter your age.)

_____
_

Q10. How would you describe your cultural background?

○ East Asian (1)

○ South Asian (2)

○ Middle Eastern / North African (3)

○ Eastern European (4)

○ Western European (5)

○ South / Latin American (6)

○ North American (7)

○ Oceanian (8)

○ Indigenous (9)

○ Other (10)

○ Prefer not to answer (11)

Q10. What is your cultural background?

○ East Asian (1)

○ South Asian (2)

○ Middle Eastern / North African (3)

○ Eastern European (4)

○ Western European (5)

○ South / Latin American (6)

○ North American (7)

○ Oceanian (8)

○ Indigenous (9)

○ Other (10)

○ Prefer not to answer (11)

Q11. What is the highest degree or level of school you have completed?

○ Up to high school (1)

○ University (2)

○ <mark>Professional / technical certification (3)</mark>

○ Other (4) _____

○ Prefer not to answer (5)

Q12. What was your total household income before taxes during the past 12 months?

○ Less than $25,000 (1)

○ $25,000 to $49,999 (2)

○ $50,000 to $99,999 (3)

○ $100,000 to $149,999 (4)

○ $150,000 to $199,999 (5)

○ $200,000 or more (6)

○ Prefer not to answer (7)

Q11. What is the highest degree of school you have completed?

○ Up to high school (1)

○ University (2)

○ <mark>Vocational College (3)</mark>

○ Other (4) _____

○ Prefer not to answer (5)

Q12. What was your total household income before taxes during the past 12 months?

○ Less than $25,000 (1)

○ $25,000 to $49,999 (2)

○ $50,000 to $99,999 (3)

○ $100,000 to $149,999 (4)

○ $150,000 to $199,999 (5)

○ $200,000 or more (6)

○ Prefer not to answer (7)

Q13. What is the industry you primarily work in?

_____

Q13. What is your occupation?

_____

Q14. Which party would you vote for if your national elections were held today?

_____

Q14. . If an election is held today, which political party do you vote for?

_____

Appendix B Sample demographics

	Canadian (n = 480)	**Japanese** (n = 159)
Gender	51% women	67% women
Age	Mean = 44.45, SD = 14.14	Mean = 48.6, SD = 16.4
Education	(NA=3)	(NA=6)
Up to High school	30.4%	9.4%
College (Less than four years)	2.9%	10.7%
University	38.8%	67.3%
Graduate schools, professional/technical certificate	27.3%	8.8%
Income		
Less than $25,000	19.2%	46.5%
$25,000 to $49,999	25.2%	18.9%
$50,000 to $99,999	37.5%	16.4%
$100,000 to $149,999	11.3%	11.3%
$150,000 to $199,999	4.4%	3.8%
$200,000 or more	2.5%	3.1%
NEP (total score from 0 to 20)	Mean = 15.1, SD = 3.8	Mean = 15.9, SD = 2.4
Judeo-Christian	78.1%	0%

Table B.0.1 Demographics of the Canadian and Japanese samples

Appendix C Descriptive Statistics

	$5,000		$50,000		$500,000	
	Mean	SD	Mean	SD	Mean	SD
Close relative	1.46	0.97	1.55	0.90	1.59	0.81
Distant relative	0.94	1.25	0.83	1.25	0.95	1.13
Stranger	0.11	1.48	0.06	1.44	0.30	1.48

Table C.1 Mean & SD of the likelihood of inheritance acceptance sorted by amount and kinship distance), the whole sample

Cm						
	$5,000		$50,000		$500,000	
	Mean	SD	Mean	SD	Mean	SD
Close relative	1.44	1.03	1.65	0.91	1.58	0.95
Distant relative	1.22	1.07	1.03	1.22	1.38	0.85
Stranger	0.53	1.11	0.48	1.29	0.58	1.30
Jm						
	$5,000		$50,000		$500,000	
	Mean	SD	Mean	SD	Mean	SD
Close relative	1.24	0.97	1.46	1.12	1.61	0.72
Distant relative	0.52	1.45	0.46	1.35	0.30	1.24
Stranger	-1.00	1.35	-0.46	1.37	-0.47	1.66

Table C.2 Mean & SD of likelihood of inheritance acceptance by amount and kinship distance, matched samples

	Positive outcome		Negative outcome	
	Mean	SD	Mean	SD
Intentionally	0.20	0.47	0.00	0.47
Not intentionally	0.18	0.45	0.05	0.40

Table C.3 Mean & SD of change in inheritance acceptance by means of wealth accumulation, whole sample
The means of wealth accumulation are categorized by outcome (positive and negative externalities) and intent (whether such externalities were created with or without knowledge). It was measured using a qualitative scale of change in the likelihood of inheritance acceptance (More likely = 1, No change =0, Less likely -1).[9]

---

[9] Participants who responded "don't know" to this question are excluded from the analysis. For coal mine owner, 36 out of 639 participants selected "don't know." Similarly, there were 37 "don't know" responses for farmer, 30 for renewable energy inventor, and 34 for mathematician.

	$5,000			$50,000			$500,000		
	All	C_m	J_m	All	C_m	J_m	All	C_m	J_m
Pay debt	27.5%	28.6%	39.1%	29.9%	25.0%	40.5%	32.3%	37.5%	36.7%
Don't pay debt	62.0%	57.1%	56.5%	60.7%	57.1%	45.9%	49.3%	37.5%	50.0%
Don't know	10.5%	14.3%	4.3%	9.5%	17.9%	13.5%	18.4%	25.0%	13.3%
Total count	197	35	23	205	28	37	194	24	30

Table C.4 Acceptance of debt after learning about debt by amount of inheritance (% of responses)

	$5,000		$50,000		$500,000	
	Mean	SD	Mean	SD	Mean	SD
Employee	57.0	43.7	59.6	41.7	65.3	40.9
Bank	35.7	42.7	44.2	44.1	47.2	44.2
Unpaid tax	35.8	43.6	44.8	44.6	46.6	44.8
Environmental fund	30.3	40.8	40.9	43.2	44.1	43.2

Table C.5 Mean & SD of the proportion of debt payment (%) by debt type and amount, whole sample

C_m						
	$5,000		$50,000		$500,000	
	Mean	SD	Mean	SD	Mean	SD
Employee	60.9	38.6	48.9	43.1	66.3	42.3
Bank	34.6	38.9	34.4	40.9	48.6	46.2
Unpaid tax	33.7	41.5	36.2	43.6	48.3	45.1
Environmental fund	23.6	35.7	32.8	41.3	34.4	40.6
J_m						
	$5,000		$50,000		$500,000	
	Mean	SD	Mean	SD	Mean	SD
Employee	83.0	35.9	88.6	30.3	84.7	30.9
Bank	54.9	49.0	79.1	40.6	72.5	40.2
Unpaid tax	59.0	48.3	81.0	37.6	76.4	39.6
Environmental fund	49.0	45.9	77.0	41.5	84.2	29.0

Table C.6 Mean & SD of payment of debt by debt type and amount, matched samples

Appendix D Comparisons of the Matched Canadian and the rest of the Canadian sample

We compared the matched Canadian sample and the rest of the Canadian sample and found that they have same patterns of variance for all variables we measured.

Three-way ANOVAs (kinship x amount x sample, outcome x intent x sample, and debt type x amount x sample) comparing the matched Canadian sample and the rest of the Canadian sample showed that sample has no main effect on acceptance of inheritance [$F(1)=1.22$, $p=.27$, $\eta_p^2=.003$], on change in acceptance of inheritance due to means of wealth accumulation [$F(1)=0.70$, $p=.40$, $\eta_p^2=.001$], or on debt payment [$F(1)=2.37$, $p=.12$, $\eta_p^2=.005$]. A binomial logistic regression also showed that the sample is not a significant predictor of acceptance of debt [$B = 0.41$, $z(1) = 1.45$, $S.E. = 0.28$, $p=.15$]. Additionally, change in acceptance of inheritance after learning about debt also does not differ between the two samples (Table D.1). The results of Chi-squared on change in acceptance of inheritance due to debt showed no statistically significant effect of sample at the $p<.5$ level.

%	The rest of Canadian sample	C_m
No -> No	16	1
No -> Yes	1	1
Yes -> No	12	1
Yes -> Yes	293	27
Yes -> Dk	40	4
Dk -> Dk	12	1
Dk -> No	1	0
Dk -> Yes	1	0
Total count	376	87

Table D.1 Would awareness about debts change your mind about accepting inheritance? (C_m and the rest of Canadian sample)

Appendix E Results of ANCOVA and binomial linear regression with covariates

For each of the five dependent variables of interest, we ran ANOCOVA with demographic variables as covariates. We were able to examine the potential impacts of demographic factors and whether factors remain significant after controlling for covariates. Participants' age is organized into six groups: 18-27, 28-37, 38-47, 48-57, 58-67, 68+. The NEP scores are grouped into four: 1-5, 6-10, 11-15, 16-20.

E.1   Acceptance of inheritance

An ANCOVA showed that even after controlling for the demographic factors, the effect of kinship distance remains significant [$F(2)$=421.07, p=<.001, η_p^2=.40]. It also showed that age and education, and religion covary with acceptance of inheritance [*age*: $F(5)$=3.52, p=<.01, η_p^2=.03, *education*: $F(4)$=2.63, p=<.05, η_p^2=.02], *religion*: $F(1)$=26.10, p=<.001, η_p^2=.04].

E.2   Change in likelihood of inheritance acceptance and means of wealth accumulation

An ANCOVA showed that even after controlling for the demographic factors, the effect of outcome remains significant [$F(1)$=132.05, p=<.001, η_p^2=.07]. Additionally, we found that age is a significant factor in change in acceptance [$F(5)$=2.57, p=<.05, η_p^2=.02]. We also found that the interaction between outcome and intent covaries with change in acceptance after controlling for demographic factors [$F(1)$=4.32, p=<.05, η_p^2=.002].

E.3 Debt acceptance

A binomial logistic regression indicates that women and educated people are more likely to accept debts than men [*women*: $B = 0.46$, $z(1)=2.28$, $S.E. = 0.20$, $p=<.05$, *education*: $B = 0.55$, $z(3)=2.42$, $S.E. = 0.23$, $p=<.05$].

E.4 Debt payment

An ANCOVA showed that debt type and amount remain significant even after controlling for the demographic factors [*debt type*: $F(3)=100.75$, $p=<.001$, $\eta_p^2=.14$, *amount*: $F(2)=5.47$, $p=<.01$, $\eta_p^2=.02$]. ANCOVAs for each debt type together show that environmental fund is the one with the strongest tie to amount [$F(2)=7.25$, $p=<.001$, $\eta_p^2=.02$]. This implies that people consider environment as a luxury expenditure. It is also evident that women, Non-Judeo-Christians, younger people, and educated people pay more debt (Table E.1 & E.2). Finally, people with higher income pay more to bank, tax and environmental fund (Table E.1).

	Employee		Bank		Unpaid tax		Environmental fund	
	Cor coef	P	Cor coef	P	Cor coef	P	Cor coef	P
Gender(Woman)	0.17	<0.001***	0.12	0.002**	0.09	0.017*	0.09	0.017*
Age	0.06	0.163	-0.11	0.004 **	-0.06	0.111	-0.1	0.011*
Education	0.08	0.038*	0.09	0.019 *	0.1	0.011 *	0.07	0.094
Income	-0.02	0.646	-0.1	0.013 *	-0.03	0.511	-0.08	0.040*
NEP total score	0.14	<0.001***	0.02	0.692	0.04	0.347	0.20	<0.001***
NonJC	0.19	<0.001***	0.26	<0.001***	0.23	<0.001***	0.30	<0.001***

Table E.1 Correlation between debt payment and demographic factors

	Employee		Bank		Unpaid tax		Environmental fund		Average of 4	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Men	52.7	43.41	36.4	41.80	37.8	43.33	34.0	41.05	40.2	36.48
Women	66.9	40.10	47.3	44.94	46.2	45.13	42.1	43.81	50.6	37.90
JC	53.9	42.4	32.8	40.8	33.8	42.1	27.5	38.8	37.0	34.3
Non-JC	70.1	40.1	56.0	44.5	54.7	45.0	54.0	43.4	58.7	38.5

Table E.2 Mean & SD of debt payment by gender and religion

Appendix F Allocation

To examine whether priming people about the notions associated with inheritance changes their use of inheritance, we had questions about allocation of inheritance at the beginning and the end of the survey. At the beginning, we asked participants to allocate the inheritance into four groups: personal use, family, charity, and other. At the end, after people answered questions about debt, participants were asked if they change the allocation of the remaining 50% of the inheritance. Figure F.1 presents the average percentage of initial allocation of inheritance. The majority of people allocated to personal use, although the average was higher among the Canadians (70%) than Japanese (54%). Japanese also allocated more to charity. However, a three-way ANOVA (allocation group, amount, culture) showed that there was no main effect of neither amount [$F(2)=1.43$, $p=.32$, $\eta_p^2=.36$] nor culture [$F(1)=0.15$, $p=.72$, $\eta_p^2=.019$].
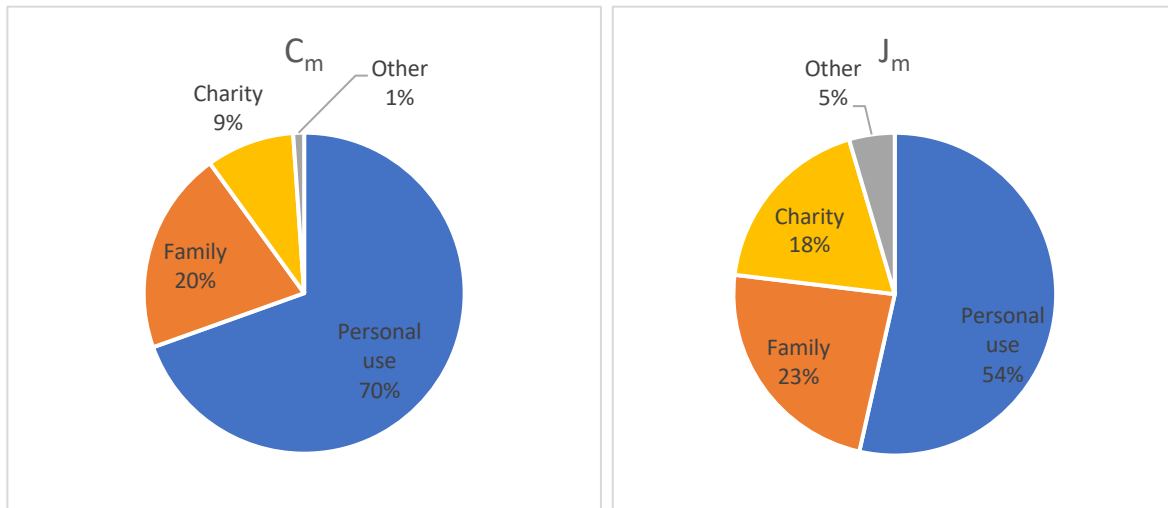

Figure F.1 Mean allocation to self, family, charity, and other (%), C_m and J_m

When participants were asked if they change their allocation after paying off debt, more than 80% of participants from both the Canadian and Japanese samples said they would not change (Figure F.2). Among people who said "Yes," indicating that they would want to change allocation, 4 out of 7 people from the Canadian sample said they would allocate more to themselves: *"Since there is less, I would probably retain more for myself than for gifts to friends and family."* In contrast, only 1 person out of 8 from Japanese sample said so. 2 people from the Japanese sample and 1 person from Canadian sample said they would allocate more to family. People in the 'Need more time" category have different explanations. For example, participants from both Canadian and Japanese samples mention that they become more cautious with using the inheritance because *"the entire situation would make me feel money may still be owing to someone"* and because *"there could be more debts (translated)."* Some from Japanese sample said they want to use the money in a way that serves the will of the deceased. Finally, there is one person from the Japanese sample who articulated her change by saying: *"In the process of returning debts I would be able to learn what the deceased had done, both good and bad. I would take into account of those things when allocating the inheritance (translated)."* The number of observations for these people were too small to produce any significant results using Chi-squared.
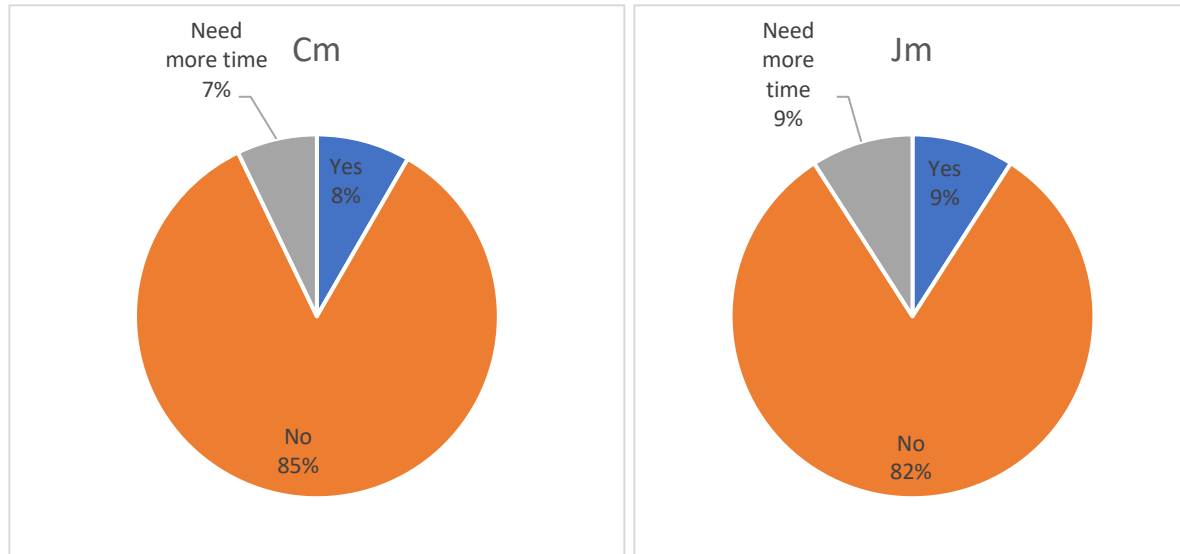
Figure F.2 Would you change how you allocate inheritance remaining after you pay off debt?