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ARE AMERICANS AND INDIANS MORE ALTRUISTIC THAN THE JAPANESE AND CHINESE? EVIDENCE FROM A NEW INTERNATIONAL SURVEY OF BEQUEST PLANS

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ARE AMERICANS AND INDIANS MORE ALTRUISTIC THAN THE JAPANESE AND CHINESE? EVIDENCE FROM A NEW INTERNATIONAL SURVEY OF BEQUEST PLANS*

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Abstract: This paper discusses three alternative assumptions concerning household preferences (altruism, self-interest, and a desire for dynasty building) and shows that these assumptions have very different implications for bequest motives and bequest division. After reviewing some of the literature on actual bequests, bequest motives, and bequest division, the paper presents data on the strength of bequest motives, stated bequest motives, and bequest division plans from a new international survey conducted in China, India, Japan, and the United States. It finds striking inter-country differences in bequest plans, with the bequest plans of Americans and Indians appearing to be much more consistent with altruistic preferences than those of the Japanese and Chinese and the bequest plans of the Japanese and Chinese appearing to be much more consistent with selfish preferences than those of Americans and Indians. These findings have important implications for the efficacy and desirability of stimulative fiscal policies, public pensions, and inheritance taxes.

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1. Introduction

There are at least three competing assumptions concerning household preferences in economics: that individuals are selfish, that they are altruistic, and that they have a desire for dynasty building. The three assumptions have very different implications for bequest motives and bequest division, so examining survey data on stated bequest motives and bequest division plans is a promising way of shedding light on which assumption holds in the real world, and comparing bequest plans in different countries is a promising way of shedding light on whether different assumptions apply in different countries.

In this paper, we discuss the three alternative assumptions concerning household preferences and show that these assumptions have very different implications for bequest motives and bequest division. After reviewing some of the literature on actual bequests, bequest motives, and bequest division, we present data on the strength of bequest motives, stated bequest motives, and bequest division plans from a new international survey on bequest plans conducted in the People's Republic of China (hereafter China), India, Japan, and the United States. We then speculate about possible reasons for inter-country differences in bequest plans and consider the policy implications of our findings.

As shown in subsection 2.1, positive bequests are consistent with all three assumptions concerning household preferences, and thus it is not possible to draw inferences about which assumption holds in the real world unless we have information on households' motives for leaving bequests. Most previous studies try to infer households' preferences from their actual behavior because they do not have any direct information on households' bequest motives, but there are many econometric and other difficulties in making such inferences. The current paper makes a significant original contribution to this literature not only by presenting direct information on households' stated bequest motives and bequest division plans but also by presenting such information on four countries (China, India, Japan, and the United States) with very different levels of economic development, cultures, etc., allowing us to see whether or not household preferences vary from country to country.

To summarize the main findings of this paper, it shows using data from a new international survey on bequest plans that there are striking inter-country differences

in bequest plans, with the bequest plans of Americans and Indians appearing to be much more consistent with selfish preferences than those of the Japanese and Chinese and the bequest plans of the Japanese and Chinese appearing to be much more consistent with selfish preferences than those of Americans and Indians. These inter-country differences in bequest plans may partly reflect inter-country differences in social safety nets and social norms and partly reflect inter-country differences in household preferences.

These findings have important implications for the efficacy and desirability of stimulative fiscal policies, public pensions, and inheritance taxes, with stimulative fiscal policies being more effective, public pensions being more effective in raising the living standards of the aged, and inheritance taxes being less necessary in countries such as Japan and China in which households are selfishly motivated and conversely in countries such as the United States and India in which households are altruistically motivated.

The remainder of this paper is organized as follows: In section 2, we discuss alternative assumptions concerning household preferences, show that these assumptions have very different implications for bequest motives and bequest division, and review some of the literature on actual bequests, bequest motives, and bequest division. In section 3, we describe the international survey on bequest plans used in this paper, and in section 4, we present evidence from this survey on bequest plans in China, India, Japan, and the United States. In section 5, we explore possible reasons for inter-country differences in bequest plans, and finally, section 6 summarizes, concludes, and explores the policy implications of our findings.

2. Bequests: Assumptions, Models, and Empirical Evidence

2.1. Theoretical Considerations

In this subsection, we discuss three assumptions concerning household preferences that are made in the theoretical literature and explore the implications of these assumptions for bequest motives and bequest division (see Cremer, Kessler, and Pestieau (1992), Masson and Pestieau (1996), and Laferrere and Wolff (2006) for more extensive expositions and Horioka, et al. (2014) for an illustrative model).

Three examples of assumptions concerning household preferences that underlie theoretical models of parental consumption and saving are as follows:[1]

(1) The household is selfish and derives utility only from its own consumption (as assumed in the selfish life cycle model of Modigliani and Brumberg (1954))
(2) The household is altruistic and derives utility not only from its own consumption but also from the consumption of others, especially that of its children, parents, and other family members (as assumed in the altruism model of Barro (1974), Becker (1974, 1981, 1991), and Stark (1995))
(3) The household cares not about itself or its children but about the perpetuation of the family line and/or the family business and tries to minimize the probability of extinction of the family line and/or the family business (as assumed in the dynasty or primogeniture model of Chu (1991))[2]

We now explore the implications of each of these assumptions concerning household preferences for bequest motives and bequest division. We will use the term "bequest" throughout this paper for brevity, but the reader should bear in mind that our analysis applies to all intergenerational transfers including inter vivos transfers and in-kind transfers such as care, attention, and co-residence (see Molina (2013) and the papers cited therein for more on in-kind transfers). Note, however, that the determinants of inter vivos transfers and bequests may differ (see, for example, Dunn and Phillips (1997), McGarry (1999), and Slavik and Wiseman; see Arrondel and Masson (2006) for a useful survey). Most of these studies find, for example, that inter vivos transfers tend to be divided unequally whereas bequests tend to be divided equally.

Looking first at selfish preferences, the implication of such preferences for bequest motives is that households will leave no bequests to their children, leave only unintended bequests arising from lifespan uncertainty (see, for example, Davies (1981)), or leave bequests only if their children provide care, attention and/or financial support during old age. One variant of the third case (the so-called "selfish exchange model") is Bernheim, Shleifer, and Summers's (1985) "strategic bequest motive," wherein parents use the threat of disinheritance to induce their children to provide care and/or attention during old age, and another variant of this case is Kotlikoff and Spivak's (1981) "implicit intra-family annuity contract," wherein parents receive an annuity from their children until death in exchange for giving their children an ex post premium in the form of a

bequest.[3] The implication of selfish preferences for bequest division is that households will leave more or all of their bequest to the child who provides more care, attention and/or financial support during old age. Thus, equal division is inconsistent with the selfish life cycle model unless all children provide exactly the same amount of care, attention and/or financial support, which is unlikely (Menchik (1988) and Bernheim and Severinov (2003)).

Looking next at altruistic preferences, the implication of such preferences for bequest motives is that households will leave a bequest to their children even if they do not provide care, attention, and/or financial support during old age and do not carry on the family line and/or the family business, and the implication of this model for bequest division is that households will leave more or all of their bequest to the child who has greater needs and/or less earnings capacity (that is, bequests will be compensatory) (Becker (1981, 1991)). Thus, equal division is not consistent with the simplest version of the altruism model unless all children have the same needs and the same earnings capacities (which is very, very unlikely), but if it is assumed that children derive disutility from receiving a smaller share of their parents' inheritance than their siblings (what Stark (1998) calls "relative deprivation"), altruistic parents may choose to divide their bequests equally even if their children's needs or earnings capacities differ (see also Bernheim and Severinov (2003)). By contrast, Wilhelm (1996) argues that it is the parents rather than the children who derive disutility from unequal division, perhaps because unequal division necessitates financial costs such as the cost of drawing up a will and/or psychic costs arising from the parents' aversion to the inequality of bequests. In a similar vein, Laitner (1997) and Lundholm and Ohlsson (2000) attribute equal division to parents' desire to insure post-mortem reputation, to preserve family solidarity, and to avoid conflicts among their children.

Turning finally to dynastic preferences, the implication of such preferences for bequest motives is that households will leave a bequest to their children only if they carry on the family line and/or the family business, and the implication of this model for bequest division is that households will leave more or all of their bequest to the child who carries on the family line and/or the family business.

Thus, the various assumptions concerning household preferences have very different implications for bequest motives and bequest division, and thus we can shed light on which assumption concerning household preferences holds in the real world by looking

at empirical evidence on bequest motives and bequest division.

It should be noted, however, that bequest motives and bequest division depend not only on household preferences but also on outside influences on household bequest behavior such as income levels, income growth, inheritance laws, tax policies, social safety nets, social norms, and other institutions and government policies. For example, altruistic households may not necessarily leave a bequest to their children even if they want to if they are too poor to do so, if income growth is high (meaning that the lifetime incomes of children exceed the lifetime incomes of parents), inheritance taxes are too high, and/or if the social norm is for parents to invest heavily in their children's human capital, which renders them incapable of leaving large bequests to their children. Alternatively, selfish households may not need to use bequests as a way of inducing or coercing their children to provide care and/or attention during old age if social safety nets for the elderly (public old-age pensions, long-term care insurance, health insurance, etc.) are adequate. Furthermore, households may be more likely to divide their bequests unequally if the social norm is for parents to leave everything to the eldest son in exchange for the eldest son living with, and taking care of, the parents in old age. Finally, selfish households may not be able to leave more to the child who took better care of them even if they want to if inheritance laws require them to divide their bequest equally among their children.

2.2 Empirical Evidence on Bequests

There have been many empirical studies that try to determine which assumption concerning household preferences holds in the real world by looking at actual bequests, bequest motives, and bequest division. In this subsection, we review some of this literature to see how much light it can shed on the issue of which assumption concerning household preferences holds in the real world. This review is selective due to space limitations and the large size of the existing literature. It focuses on studies that shed light on the issue of which assumption concerning household preferences holds in the real world and on studies that use data for the United States and Japan. For more comprehensive surveys, see Arrondel and Masson (2006) and Laferrere and Wolf (2006).

2.2.1. Empirical Evidence on Actual Bequests

We look first at empirical studies that have attempted to measure the importance of actual bequests. In a seminal study, Kotlikoff and Summers (1981) calculate the share of bequests and other intergenerational transfers in total household wealth in the United States and obtain the surprising finding that this share is 46-81% depending on the calculation method used. Modigliani (1988) criticizes Kotlikoff and Summers' (1981) calculations on a number of grounds and claims that the true value of this share is 17-20%, but Kotlikoff (1988) argues that some of Modigliani's adjustments are excessive or unwarranted. Barthold and Ito (1992) calculate this share for both Japan and the United States and find that it is 25-40% in both countries, that it is higher in Japan under certain assumptions, and that it is higher in the United States under other assumptions. Turning to studies for Japan, Hayashi (1986) finds that this share is at least 9.6%, Dekle (1989) finds that it is 3-48.7%, Campbell (1997) finds that it is at most 23.4-28.1%, Horioka, et al. (2002) finds that it is 23.9%, and Horioka (2009) finds that it is 15.2-17.9% (see Horioka (1993) for a review of this literature). The range of these estimates is quite broad, but the consensus seems to be that bequests and other intergenerational transfers are quantitatively more important in the United States than in Japan.

2.2.2. Empirical Evidence on Bequest Motives

Turning next to the issue of what motivates bequests, since few household surveys ask respondents directly about their attitudes towards bequests, most previous studies have tried to infer respondents' bequest motives from the impact of bequests on the amount of care, attention, and/or financial assistance that aged parents receive from their children. If bequests are altruistically motivated (and altruism is one-sided), there should not be any correlation between bequests from parents to children and care, attention, and/or financial assistance from children to aged parents, whereas if bequests are motivated by selfish exchange, there should be a positive correlation between bequests from parents to children and care, attention, and/or financial assistance from children to aged parents.

Looking first at studies that use U.S. data, one study of this genre is Menchik, et al. (1988), which obtains a positive correlation between the parents' intention to bequeath and the frequency of their children's telephone calls and visits, a result which appears

to support the selfish exchange model. However, this study fails to distinguish between single-child families and multiple-child families, as done by later studies.

The reference study on the impact of bequests on the amount of attention from one's children is Bernheim, Shleifer, and Summers (1985), which finds, using data from the Longitudinal Retirement History Survey (LRHS), that bequeathable wealth has a positive and significant impact on the frequency of phone calls and visits from one's children in the case of families with two or more children, even after controlling for the parents' age, health, and employment status, but that it has a negative and insignificant impact on the frequency of phone calls and visits in the case of families with only one child and that non-bequeathable wealth does not have a significant impact on the frequency of phone calls and visits in either sample. All of these results appear to support the selfish exchange model because only bequeathable wealth should influence the behavior of children and because parents' threat of disinheritance is not credible if they have only one child.

However, Perozek (1998) replicates Bernheim, Shleifer, and Summers' (1985) test using a richer data set (the 1987 National Survey of Families and Households (NSFH)) and finds that bequeathable wealth no longer has a significant impact on attention from one's children when additional child and family characteristics are taken into account and/or a more comprehensive measure of attention is used.

Moreover, Altonji, Hayashi, and Kotlikoff (2000) analyze inter vivos time and money transfers from parents to children as well as those from children to parents, using data from the 1988 wave of the Panel Study of Income Dynamics (PSID), and find little evidence that parental income or wealth raises time transfers from children or that time transfers from children to parents are exchanged for money transfers from parents to children or conversely. Similarly, Ioannides and Kan (2000) analyze two-directional inter vivos transfers of time and money between parents and children and find that they are motivated by mutual altruism rather than by selfish exchange motives.

Furthermore, Horioka, et al. (2000) analyze data from the "Comparative Survey of Savings in Japan and the United States," conducted in 1996 by the former Ministry of Posts and Telecommunications of the Japanese Government, and find that parent-child co-residence rates are much higher for parents with a weak bequest motive (12.02%) than they are for parents with a strong bequest motive (6.7 to 7.5%) and that they are, if

anything, lower for parents with a strong bequest motive (6.7 to 7.5%) than they are for parents with no bequest motive at all (7.7%) in the case of the United States. All of these results are inconsistent with the selfish exchange model.

Thus, the most careful studies of the impact of bequests on the amount of care, attention, and/or financial assistance from children that use U.S. data find little evidence in support of the selfish exchange model, which suggests that bequests are largely altruistically motivated in the United States. To cite a few examples on the other side of the ledger, Cox (1987) and Cox and Rank (1992) find that the recipient's income has a positive impact on the amount of intra-family inter vivos transfers conditional on transfers being made and interpret this as evidence that inter vivos transfers are motivated by selfish exchange motives. In a similar vein, Altonji, Hayashi, and Kotlikoff (1997) find that inter vivos transfers are weakly compensatory but far from fully compensatory. According to Laferrere and Wolff's (2006) more comprehensive review of the literature, about two-thirds of the studies using U.S. data find support for the altruism model or reject the selfish exchange model, but the majority of studies using French data support the selfish exchange model or reject the altruism model.

Turning to studies that use Japanese data, Noguchi, Uemura, and Kitou (1989) analyze data from their own survey and find that children are more likely to receive a bequest from their parents if they live with their parents, especially if they are the eldest son, and that their probability of receiving a bequest is higher, the higher is the amount of financial support they give to their parents.

Turning to studies that examine the opposite direction of causality (the impact of parents' bequeathable wealth or bequest motives on children's behavior), Ohtake and Horioka (1994) analyze the determinants of financial support from children to parents and parent-child co-residence using data from the 1986 Comprehensive Survey of Living Conditions, conducted by the Ministry of Health, Labour and Welfare of the Japanese Government. They find that parents' financial net worth (a component of bequeathable wealth) has a positive and significant impact on the amount of financial support from children to parents (given that the child provides financial support to his or her parents) and that housing wealth (also a component of bequeathable wealth) has a positive and significant impact on the probability of parent-child co-residence but that non-bequeathable wealth does not have a significant impact on either (see also Ohtake (1991)).

Similarly, Komamura (1994) analyzes data from the Survey of Retirement Assets, conducted in 1990 by the former Management and Coordination Agency of the Japanese Government, and finds that housing wealth has a positive and significant impact on the probability of parent-child co-residence.

Moreover, the aforementioned study by Horioka, et al. (2000) finds that parent-child co-residence rates are highest for parents with a strong bequest motive (63-64%), much lower for parents with a weak bequest motive (49%), and even lower for parents with no bequest motive at all (25%) in the case of Japan.

Furthermore, Yamada (2006) analyzes the determinants of parent-child co-residence, parent-child distance, and the frequency of parent-child contact using data from the Survey on Life Planning in the Age of Long Life, conducted in 1992 by the Japan Institute of Life Insurance, and finds that inheritance expectations have a significant impact on all three dependent variables, at least in the case of the husband's parents, and that inheritance experience has a significant impact on the second and third dependent variables in the case of all parents as well as in the case of the husband's parents.

Thus, studies relating the probability of leaving bequests with the amount of care, attention, and/or financial assistance from children that use Japanese data find support for the selfish exchange model, which suggests that bequests are selfishly motivated in Japan, unlike in the case of the United States.

Turning finally to attitudinal data on bequest motives, Horioka, et al. (2000) and Horioka (2002) analyze data from the aforementioned "Comparative Survey of Savings in Japan and the United States" and find that 42.53% of Americans plan to leave a bequest to their children no matter what, that 3.40% of Americans plan to leave a bequest to their children only if their children take care of them, that 51.13% of Americans do not plan to make any special efforts to leave a bequest to their children, and that 2.93% of Americans do not feel that it is necessary to leave a bequest to their children under any circumstances. Since the first way of thinking is consistent with the altruism model and the second through fourth ways of thinking are consistent with the selfish life cycle model, these results imply that 42.53% of Americans are altruistic and that 57.47% are selfish.

By contrast, Horioka, et al. (2000) and Horioka (2002) find, using data from the same survey, that 19.28% of the Japanese plan to leave a bequest to their children no matter what, that 6.39% of the Japanese plan to leave a bequest to their children only if their children take care of them, that 69.33% of the Japanese do not plan to make any special efforts to leave a bequest to their children, and that 5.00% of the Japanese do not feel that it is necessary to leave a bequest to their children under any circumstances, which implies that 19.28% of the Japanese are altruistic and that 80.72% are selfish (see Horioka (2002, 2008, and 2009) for similar data from other surveys).

Thus, the conclusion based on attitudinal data on bequest motives is consistent with the conclusion based on studies of the impact of bequests on the amount of care, attention, and/or financial assistance from children, with both suggesting that Americans are much more altruistic than the Japanese.

2.2.3. Empirical Evidence on Bequest Division

Turning next to the issue of bequest division, the available evidence suggests that the equal division of bequests among one's children is by far the dominant practice in the United States. For example, Menchik (1980) finds that bequests are divided roughly equally among one's children and, in particular, that males or first-born or earlier-born children do not receive larger bequests than other siblings. Similarly, Wilhelm (1996) finds that 68.6% of multi-child decedents divided their estates exactly equally among their children, that 76.6% of multi-child decedents divided their estates so that each child received within plus or minus 2% of the average inheritance among children in the family, and that 88% of multi-child decedents divided their estates approximately equally among their children. Dunn and Phillips (1997) find that 90% of American households bequeath at least some assets to all of their children even though inter vivos transfers such as cash gifts and co-residence are made preferentially to poorer children. McGarry (1999) finds that 83% of respondents in the Asset and Health Dynamics (AHEAD) Study report that their wills treat all of their children approximately equally, while Light and McGarry (2004) find that 92.1% of respondents in the 1999 National Longitudinal Surveys (NLS) of Mature Women and Young Women who have children and who have a will say that their estate will be divided equally among their children. Finally, Horioka, et al. (2000) and Horioka (2002) analyze data from the aforementioned "Comparative Survey of Savings in Japan and the United States" and find that 84.10%

of Americans with two or more children plan to divide their estates equally among their children.

By contrast, Horioka, et al. (2000) and Horioka (2002) find, using data from the same survey, that only 44.17% of Japanese with two or more children plan to divide their estates equally among their children (see Horioka (2002, 2008, and 2009) for similar data from other surveys).

Thus, the tendency to divide estates equally among one's children is much stronger (nearly twice as strong) in the United States than it is in Japan, and moreover, at least one study (Tomes, 1981) finds that bequest division is compensatory in the U.S., with low-income children inheriting more (ceteris paribus) than their advantaged siblings, and Dunn and Phillips (1997), McGarry (1999), and Slavik and Wiseman (2013) find that inter vivos transfers are unequal and compensatory in the U.S. This suggests that Americans are much more altruistic than the Japanese, and this conclusion based on evidence on bequest division is fully consistent with our earlier conclusion based on evidence on bequest motives, which is reassuring.

3. New Survey on Bequest Plans

In this section, we describe the survey we use in this paper: the "Preference Parameters Study of Osaka University," a new international survey that collects detailed information on bequest plans. This survey was conducted annually during the 2003-13 period in Japan, annually during the 2005-13 period in the United States, in 2006 and annually during the 2009-13 period in urban China, in 2007, 2010, and 2013 in rural China, annually during the 2009-13 period in urban India, and annually during the 2012-13 period in rural India by the Global Center of Excellence (GCOE) Program on "Human Behavior and Socioeconomic Dynamics" (2003-08) of the Graduate School of Economics, the Institute of Social and Economic Research (Research Center for Behavioral Economics) of Osaka University, etc., and its predecessor, the Twenty-first Century Center of Excellence (COE) Program on "Behavior Macrodynamics Based on Surveys and Experiments" (2008-13) of the same institutions.

In this paper, we use data from the 2012 waves of the Chinese, Indian, Japanese, and United States surveys except that we use data from the 2010 survey for rural China

because this survey was not conducted in 2011 or 2012.

The survey for urban China is a panel survey and surveyed a random sample of males and females who were aged 20 to 69 in 2009 and living in one of six major cities (Beijing, Chengdu, Guangzhou, Shanghai, Shenyang, and Wuhan) using the interview method.

The survey for rural China is a repeated cross-section survey and surveyed a random sample of males and females who were aged 20 to 69 and living in the rural areas of one of four provinces (Hunan, Hubei, Sichuan, and Liaoning) using the interview method.

The survey for urban India is a panel survey and surveyed a random sample of males and females who were aged 20 to 69 in 2009 and living in one of six major cities (Delhi, Mumbai, Bangalore, Chennai, Kolkata, and Hyderabad) using the interview method.

The survey for rural India is a panel survey and surveyed a random sample of males and females who were aged 20 to 69 in 2012 and living in the rural areas of one of four cities (Delhi, Mumbai, Bangalore, and Kolkata) using the interview method.

The Japanese survey is a panel survey and surveyed a nationwide random sample of males and females who were aged 20 to 69 in 2003 using the drop-off, pick-up method. Fresh respondents were selected and added to the sample in the 2004, 2006 and 2009 waves.

The United States survey is a panel survey and surveyed a nationwide representative sample of males and females who were aged 18 to 99 in 2005 from the TNS Panel using a mailed questionnaire. Fresh respondents were selected and added to the sample in the 2007, 2008, and 2009 waves.

The data from the urban and rural surveys for China were combined by weighting the observations for urban and rural areas by the proportion of the population living in urban and rural areas in 2012 (52% and 48%, respectively) and likewise in India (32% and 68%, respectively) (data on urban and rural populations were taken from the World Bank (2013)).

Finally, respondents whose reported age was not within the range noted above were dropped from the sample. This problem arose only in the case of the United States

survey.

Almost identical survey instruments were used in each country, making it possible to make direct comparisons among the four countries. For more detailed information on the survey, see http://www.iser.osaka-u.ac.jp/coe/journal/eng_panelsummary.html.

4. Evidence from the New Survey on Bequest Plans

In this section, we discuss our findings for China, India, Japan, and the United States based on the new international survey on bequest plans. We discuss our findings pertaining to the strength of bequest motives, stated bequest motives, and bequest division plans in subsections 4.1, 4.2, and 4.3, respectively.

4.1. Evidence on the Strength of Bequest Motives

In this subsection, we present evidence on the strength of bequest motives in China, India, Japan, and the United States from the new survey on bequest plans. As explained in the next subsection, this survey asks respondents about how they feel about leaving an inheritance to their child(ren), and the responses can be grouped according to the strength of their bequest motives. The response implying the strongest bequest motive is "I plan to leave an inheritance to my child(ren) no matter what" (to be referred to as an "unconditional bequest motive"), the responses implying the second strongest bequest motive are the three responses "I plan to leave an inheritance to my child(ren) only if they provide care (including nursing care) during old age," "I plan to leave an inheritance to my child(ren) only if they provide financial assistance during old age" and "I plan to leave an inheritance to my child(ren) only if they carry on the family business" (to be collectively referred to as a "conditional bequest motive"), and the response implying the third strongest bequest motive is "I want to leave an inheritance to my child(ren) but I won't because I don't have the financial capacity to do so" (to be referred to as a "potential bequest motive").

By contrast, the responses implying the weakest bequest motive are "I do not plan to leave an inheritance to my child(ren) under any circumstances because doing so may reduce their will to work" and "I do not plan to leave an inheritance to my child(ren) under any circumstances because I want to use my wealth myself" (to be collectively

referred to as “no bequest motive”), and the response implying the second weakest bequest motive is “I do not plan to make special efforts to leave an inheritance to my child(ren) but will leave whatever is left over” (to be referred to as a “passive bequest motive”).

The results are shown in Table 1, and as can be seen from this table, the proportion of respondents with an unconditional bequest motive is highest in India (68.98%), second highest in the United States (58.17%), third highest in China (34.24%), and lowest in Japan (26.67%). Similarly, the proportion of respondents with an unconditional or conditional bequest motive is highest in India (87.05%), second highest in the United States (60.77%), third highest in China (56.35%), and lowest in Japan (31.44%), and the proportion of respondents with an unconditional, conditional, or potential bequest motive is highest in India (95.88%), second highest in the United States (73.18%), third highest in China (59.23%), and lowest in Japan (49.56%).

By contrast, the proportion of respondents with no bequest motive at all is highest in China (4.81%), second highest in Japan (2.48%), third highest in the United States (1.82%), and lowest in India (0.62%), the proportion of respondents with only a passive bequest motive is highest in Japan (47.96), second highest in China (35.96%), third highest in the United States (25.00%), and lowest in India (3.50%), and the proportion of respondents with either no bequest motive at all or only a passive bequest motive is highest in Japan (50.44%), second highest in China (40.77%), third highest in the United States (26.82%), and lowest in India (4.12%).

Thus, the strength of bequest motives varies considerably from country to country, and according to virtually all criteria, bequest motives are strongest in India, second strongest in the United States, third strongest in China, and weakest in Japan. Reassuringly, these findings are consistent with the findings of the studies surveyed in subsection 2.2.1, which find that actual bequests are quantitatively more important in the United States than they are in Japan.

However, as explained in subsection 2.1, evidence on the strength of bequest motives does not necessarily shed light on which assumption concerning household preferences holds in the real world because positive bequests are consistent with all three assumptions concerning household preferences and one needs evidence on the motives for which households leave bequests in order to know which assumption concerning

household preferences holds in the real world. It is to such evidence that we turn next.

4.2. Evidence on Stated Bequest Motives

The new survey on bequest plans asks respondents how they feel about leaving an inheritance to their child(ren), with the responses (grouped by the assumption concerning household preferences with which they are consistent) being as follows:

(Responses consistent with altruism)

(1) I plan to leave an inheritance to my child(ren) no matter what.

(2) I do not plan to leave an inheritance to my child(ren) under any circumstances because doing so may reduce their will to work.

(Responses consistent with self-interest)

(3) I plan to leave an inheritance to my child(ren) only if they provide care (including nursing care) during old age.

(4) I plan to leave an inheritance to my child(ren) only if they provide financial assistance during old age.

(5) I do not plan to make special efforts to leave an inheritance to my child(ren) but will leave whatever is left over.

(6) I do not plan to leave an inheritance to my child(ren) under any circumstances because I want to use my wealth myself.

(Responses consistent with dynasty building)

(7) I plan to leave an inheritance to my child(ren) only if they carry on the family business.

(Response for which consistency with an assumption concerning household preferences is not clear)

(8) I want to leave an inheritance to my child(ren) but I won't because I don't have the financial capacity to do so.

The results are shown in Table 2, with motives being grouped by the assumption concerning household preferences with which they are consistent and with response (8) being dropped.

As can be seen from this table, the proportion of respondents whose attitude toward bequests is consistent with altruism is highest in India (75.80%), second highest in the United States (66.97%), third highest in China (37.40%), and lowest in Japan (33.98%), while the proportion of respondents whose attitude toward bequests is consistent with self-interest is highest in Japan (64.96%), second highest in China (55.10%), third highest in the United States (32.76%), and lowest in India (21.82%).

Finally, the proportion of respondents whose attitude toward bequests is consistent with dynasty building is low (no higher than 7.50%) in all four countries but is highest in China (7.50%), followed by India (2.38%), Japan (1.06%), and the United States (0.26%).

Thus, it appears that there are considerable differences among the four countries in stated bequest motives, with stated bequest motives being primarily altruistic in India and the United States and primarily selfish in Japan and China and dynastic motives not being important in any of the four countries but more important in China than elsewhere.

Moreover, a comparison of Tables 1 and 2 shows that there is a very high correlation between the strength of bequest motives and stated bequest motives, with the rank ordering of the four countries being exactly the same regardless of whether they are ranked according to the strength of bequest motives or according to the proportion of respondents whose attitude toward bequests is consistent with altruism, with India being first, the United States second, China third, and Japan last. Conversely, the rank ordering of the four countries when they are ranked according to the strength of bequest motives is just the opposite of their rank ordering when they are ranked according to the proportion of respondents whose attitude toward bequests is consistent with self-interest. It thus appears that altruistic individuals have strong bequest motives and that selfish individuals have weak bequest motives, as conventional wisdom would predict. Moreover, our findings are broadly consistent with the findings of the studies surveyed in subsection 2.2.2, which find that bequest motives are more altruistic in the United States than they are in Japan.

Looking in more detail at the importance of the individual responses, the dominant altruistic motive in all four countries is "I plan to leave an inheritance to my child(ren) no matter what," and the rank ordering of the four countries with respect to the proportion of respondents selecting this response is identical to the rank ordering of the

four countries with respect to the proportion of respondents whose attitude toward bequests is consistent with altruism.

Similarly, the dominant selfish motive in all countries except India is "I do not plan to make special efforts to leave an inheritance to my child(ren) but will leave whatever is left over," and the rank ordering of the four countries with respect to the proportion of respondents selecting this response is identical to the rank ordering of the four countries with respect to the proportion of respondents whose attitude toward bequests is consistent with self-interest.

By contrast, the proportion of respondents selecting the two exchange-related selfish motives ("I plan to leave an inheritance to my child(ren) only if they provide care (including nursing care) during old age" and "I plan to leave an inheritance to my child(ren) only if they provide financial assistance during old age") is highest in India (and second highest in China) and lowest in Japan (and second lowest in the United States) even though the proportion of respondents whose attitude toward bequests is consistent with self-interest is lowest in India and highest in Japan.

Finally, the proportion of respondents who do not plan to leave an inheritance for either altruistic or selfish reasons is small (less than 3%) in all four countries, and the proportion of respondents who plan to leave an inheritance to their child(ren) only if they carry on the family business (the only response that is consistent with the dynasty model) is also small (no higher than 7.50%) in all four countries.

Thus, except for the results for exchange-related selfish motives, the detailed results are consistent with our earlier finding that bequest motives are primarily altruistic in India and the United States and primarily selfish in Japan and China and that dynastic motives are not important in any of the four countries but more important in China than elsewhere. As for why exchange-related selfish motives are stronger in India and China than in Japan and the United States, it could be because mutual assistance and support and risk sharing within the family are necessarily stronger in countries where social safety nets are weaker, as suggested by Esping-Andersen (1990, 1999).

4.3. Evidence on Bequest Division Plans

Evidence on bequest division plans can shed further light on which assumption

concerning household preferences holds in the real world so, in this subsection, we present evidence on bequest division plans in China, India, Japan, and the United States from the new survey on bequest plans. This survey asks respondents not only about how they feel about leaving inheritances to their child(ren) but also about how they plan to divide their inheritances among their children. However, since bequest division among one's children is a moot question in the case of respondents with no children or only one child, only respondents with two or more children are asked about bequest division plans. They are first asked whether they plan to divide their inheritances equally or unequally among their children, and those who are planning to divide their inheritances unequally are then asked how they plan to divide their inheritances among their children, with the following responses (grouped by the assumption concerning household preferences with which they are consistent):

(Responses consistent with altruism)
(1) I plan to leave more or all to the child (children) who has less earning capacity.
(2) I plan to leave more or all to the child (children) who has greater needs.
(3) I plan to leave more or all to the child (children) whom I like more.

(Responses consistent with self-interest)
(4) I plan to leave more or all to the child (children) who lives with me.
(5) I plan to leave more or all to the child (children) who lives near me.
(6) I plan to leave more or all to the child (children) who helps me with housework.
(7) I plan to leave more or all to the child (children) who provides nursing care.
(8) I plan to leave more or all to the child (children) who provides financial assistance.

(Responses consistent with dynasty building)
(9) I plan to leave more or all to the child (children) who carries on the family business.
(10) I plan to leave more or all to my eldest son or daughter even if he/she does not live with me, does not live near me, does not help me with housework, does not provide nursing care, does not provide financial assistance, and does not carry on the family business.

As can be seen from Table 3, the proportion of respondents whose way of dividing their bequest among their children is consistent with altruism is high (in excess of 70%) in all four countries but highest in the United States (97.58%), second highest in India (84.35%), third highest in Japan (80.12%), and lowest in China (78.79%). These

findings are broadly consistent with the findings of previous studies surveyed in subsection 2.2.3, which find that bequest division is much more altruistic in the United States than in Japan.

By contrast, the proportion of respondents whose way of dividing their bequest among their children is consistent with self-interest is highest in Japan (20.46%), second highest in China (19.28%), third highest in India (15.63%), and lowest in the United States (2.52%). Similarly, the proportion of respondents whose way of dividing their bequest among their children is consistent with dynasty building is highest in China (7.85%), second highest in Japan (7.51%), third highest in the United States (0.84%), and lowest in India (0.48%).

Thus, the results pertaining to bequest division plans are broadly consistent with the results pertaining to stated bequest motives, with Americans and Indians being more altruistic than the Japanese and Chinese, the Japanese and Chinese being more selfish than Americans and Indians, and dynastic motives being unimportant in all countries but more important in China than in the other countries.

Looking in more detail at the importance of the individual responses, equal division among one's children is by far the most common response in all four countries, with the proportion of respondents who plan to divide their bequests equally exceeding 70% in all four countries. This proportion was highest in the United States (92.55%), second highest in India (84.17%), third highest in Japan (72.67%), and lowest in China (70.28%), and hence the rank ordering of the four countries is exactly the same as in the case of the proportion of respondents whose planned way of dividing their bequest among their children is consistent with altruism.

Turning to the importance of the responses for dividing bequests unequally, most of them are of only negligible importance, with the proportion of respondents choosing any given response exceeding 10% in only three cases, all of which occur in Japan and China: 14.38% of Japanese respondents selected the response "I plan to leave more or all to the child (children) who lives with me," while 12.82% of Japanese respondents and 11.60% of Chinese respondents selected the response "I plan to leave more or all to the child (children) who provides nursing care." Both of these responses are consistent with self-interest, and thus the fact that they were found to be the most prevalent in the two countries in which preferences are the most selfish is not at all surprising.

The three altruistic responses excluding equal division, the three selfish responses excluding the two aforementioned ones, and the two dynastic responses are not important in any country, with no more than 6.5% of responses selecting any of these responses in any of the four countries.

Thus, the results concerning bequest division plans are somewhat divergent from our earlier results concerning stated bequest motives, with bequest division plans being much more altruistic than stated bequest motives in all countries and bequest division plans being more selfish in China than in Japan and more altruistic in the United States than in India, which is the opposite of the pattern observed for stated bequest motives. However, the discrepancy regarding the prevalence of altruism can be reconciled if one bears in mind that equal division is not consistent with the simplest version of the altruism model and that it is consistent with the altruism model only if it is extended to include the presence of relative deprivation or some other additional assumption, as noted in subsection 2.1, meaning that regarding equal division as being consistent with altruism will lead to an overestimate of the proportion of households whose bequest division plans are consistent with altruism.

Our findings pertaining to stated bequest motives and those pertaining to bequest division plans are mutually consistent in that they both indicate that the applicability of the various assumptions concerning household preferences vary greatly from country to country, with Americans and Indians being much more altruistic than the Japanese and Chinese and the Japanese and Chinese being much more selfish than Americans and Indians, and that dynastic preferences are not very prevalent in any of the four countries but are more prevalent in China than elsewhere. Moreover, our findings are also broadly consistent with the findings of previous studies surveyed in subsection 2.2, which find that Americans are more altruistic than the Japanese.

5. Possible Reasons for Inter-Country Differences in Bequest Plans

Our results suggest that there are substantial inter-country differences in the prevalence of self-interest and altruism, with the bequest plans of Americans and Indians being much more consistent with altruism than those of the Japanese and Chinese and the bequest plans of the Japanese and Chinese being much more

consistent with self-interest than those of Americans and Indians. In this section, we speculate about the reasons for these substantial inter-country differences in bequest plans. One possibility is that inter-country differences in bequest plans reflect inter-country differences in household preferences. Alternatively, these differences may reflect inter-country differences in outside influences on bequest plans such as income levels, income growth, inheritance laws, tax policies, social safety nets, social norms, and other institutions and government policies, as noted in subsection 2.1.

Looking first at the impact of income levels, households living in countries with high income levels should have stronger bequest motives than households living in countries with low income levels if poor households cannot afford to leave bequests and bequests are a superior good those consumption increases with income. Thus, the fact that bequest motives are strong in the United States where income levels are high and weak in China where income levels are low suggests that inter-country differences in income levels can partly explain inter-country differences in the strength of bequest motives. However, the fact that bequest motives are weak in Japan even though income levels are high and strong in India even though income levels are low and the fact that the proportion of respondents who don't plan to leave a bequest because they don't have the financial capacity to do so is much higher in Japan and the United States than in China and India even though income levels are much higher in these countries (see Table 1) point toward the opposite conclusion.

Looking next at the impact of income growth, households living in countries with high rates of income growth should be less likely to leave bequests, ceteris paribus, than households living in countries with low rates of income growth because high rates of income growth imply that the lifetime incomes of children will be much higher than the lifetime incomes of parents. Thus, the fact that bequest motives are strong in the United States where income growth has been low and weak in China where income growth has been high suggests that inter-country differences in income growth can partly explain inter-country differences in the strength of bequest motives. However, the fact that bequest motives are strong in India even though income growth has been high and weak in Japan even though income growth has been low points toward the opposite conclusion.

Looking next at the impact of inheritance laws, the fact that the equal division of bequests among one's children is less prevalent in Japan than elsewhere even though it

is not possible to disinherit any given child completely in Japan (one is legally required to leave at least one-half of an equal share to each child) suggests that inter-country differences in inheritance laws are not the explanation for inter-country differences in bequest division plans.

Looking next at the impact of social safety nets for the elderly (public old-age pensions, long-term care insurance, health insurance, etc.), our finding that the use of bequests to induce one's children to provide care and/or attention during old age is much more prevalent in China and India, where social safety nets for the elderly are less developed, and less prevalent in Japan and the United States, where social safety nets for the elderly are more developed, suggests that inter-country differences in social safety nets for the elderly are a partial explanation for inter-country differences in stated bequest motives.

Looking finally at the impact of social norms, the social norm in Japan and China has traditionally been primogeniture, meaning that eldest sons inherit the entire estate of their parents but are expected, in exchange, to live with their parents and care for them during their old age. The present Civil Codes of both Japan and China provide for equal division, but primogeniture is still surprisingly common and can be legally enforced if the decedent leaves a will and/or if all children other than the eldest son "voluntarily" renounce their inheritance rights (see Horioka (2002) for a more detailed discussion). If social norms are an important influence on bequest plans, we would expect equal division to be less prevalent and dynastic bequest division to be more prevalent in Japan and China than in the United States and India, and this is, in fact, exactly what we find.

It thus appears that many outside influences on household behavior (such as income levels, income growth, and inheritance laws) are not capable of explaining inter-country differences in bequest plans although some outside influences (such social safety nets for the elderly and social norms) are capable of partly explaining inter-country differences in bequest plans. This implies that inter-country differences in bequest plans are at least partly due to inter-country differences in household preferences.

Turning finally to the question of why household preferences vary from country to country, one possibility is that inter-country differences in household preferences reflect inter-country differences in culture. The fact that bequest plans are similar in Japan

and China, which have very similar cultures, suggests that inter-country differences in culture are a partial explanation for inter-country differences in bequest plans, but the fact that bequest plans are similar in the United States and India even though they have very different cultures suggests that culture is not the main explanation for inter-country differences in bequest plans.

Another possibility is that more deeply religious people have more altruistic preferences and that inter-country differences in the degree of religiosity (which is one component of culture) can explain inter-country differences in household preferences. The survey we used asks respondents whether or not the statement "I am deeply religious" applies to him/her, with 1 indicating that it is particular true for him/her and 5 indicating that it does not hold true at all for him/her, and this question was asked in all countries except for China. The results for this question, combined with supplementary data on all four countries from Zuckerman (2005), suggest that the degree of religiosity is highest in India, second highest in the United States, third highest in China, and by far the lowest in Japan (see Table 4). This is exactly the same rank ordering as when the four countries are ranked with respect to the extent to which their stated bequest motives are altruistic, which suggests that inter-country differences in the degree of religiosity may explain inter-country differences in household preferences, which in turn may explain inter-country differences in bequest plans. The importance of religiosity is confirmed by Gans, Silverstein, and Lowenstein (2009), who find that religious children are more likely to provide care to their aged parents. In a different context, Lehrer (2004) and Mukhopadhyay (2011) analyze the impact of religiosity on educational attainment and find that religiosity has a significant impact on educational attainment, with Lehrer (2004) finding that it has a positive impact and Mukhopadhyay (2011) finding that it has a negative impact. This provides further corroboration that one's degree of religiosity may affect one's preferences and behavior.

It thus appears that inter-country differences in household bequest plans are not due to inter-country differences in income levels, income growth, or inheritance laws but that they partly reflect inter-country differences in social safety nets and social norms and partly reflect inter-country differences in household preferences, which in turn may reflect inter-country differences in the degree of religiosity. There are other possible reasons for inter-country differences in household preferences such as inter-country differences in genes, the degree of financial development, and tax systems (for example,

the level and structure of income taxes, property taxes, and estate taxes and the availability of tax breaks for charitable contributions). A causal analysis on the importance of these factors is left as a topic for future research.

6. Summary, Conclusions, and Policy Implications

In this paper, we discussed three alternative assumptions concerning household preferences (altruism, self-interest, and a desire for dynasty-building) and showed that these assumptions have very different implications for bequest motives and bequest division. After reviewing some of the literature on actual bequests, bequest motives, and bequest division, the paper presented data on the strength of bequest motives, stated bequest motives, and bequest division plans from a new international survey conducted in China, India, Japan, and the United States. It found striking inter-country differences in bequest plans, with the bequest plans of the Japanese and Chinese appearing to be much more consistent with selfish preferences than those of Americans and Indians and the bequest plans of Americans and Indians appearing to be much more consistent with altruistic preferences than those of the Japanese and Chinese. Finally, we found that inter-country differences in bequest plans are apparently not due to inter-country differences in income levels, income growth, or inheritance laws but could partly reflect inter-country differences in social safety nets for the elderly and social norms and partly reflect inter-country differences in household preferences, which in turn may reflect inter-country differences in the degree of religiosity.

It thus appears that when economists model household behavior, it is important to use a model that nests selfish as well as altruistic preferences or to use a model that assumes selfish preferences in countries where self-interest dominates and a model that assumes altruistic preferences in countries where altruism dominates.

Turning finally to the policy implications of our findings, it is well-known that the impact of government policies are dramatically different depending on whether households are selfish, altruistic, or dynastic (see Barro (1974), Masson and Pestieau (1996), and Arrondel and Masson (2006)).

For example, our finding that the Japanese and Chinese are predominantly selfish

implies that Ricardian equivalence will *not* hold in Japan and China and that tax cuts financed by the issuance of government bonds *will* be effective as an economic stimulus in these countries because households in these countries will not care about the higher taxes that future generations will have to pay in order to redeem the government bonds and will therefore increase their consumption spending in response to the tax cuts. By contrast, our finding that Americans and Indians are predominantly altruistic implies that Ricardian equivalence *will* hold in the United States and India and that tax cuts financed by the issuance of government bonds will *not* be effective as an economic stimulus in these countries because households will save the entire tax cut in order to increase their bequests and compensate future generations for the higher taxes they will have to pay when it comes time for the government to redeem its bonds (see Barro (1974)).

Similarly, our finding that the Japanese and Chinese are predominantly selfish implies that the introduction of a pay-as-you-go public old-age pension system will reduce household saving in Japan and China because the introduction of such a system will alleviate the need for them to save on their own in preparation for retirement. Moreover, the introduction of such a system will also enable them to enjoy a higher standard of living during retirement, which is presumably the aim of such a system, because the introduction of such a system will force them to postpone consumption until after retirement. By contrast, our finding that Americans and Indians are predominantly altruistic implies that the introduction of a pay-as-you-go public old-age pension system will not have any impact on household saving in the United States and India because households will bequeath all of their pension benefits to their children to compensate them for the payroll taxes they will have to pay to finance these benefits, meaning that they will have to save just as much as before to finance their living expenses during retirement. Moreover, the living standards of Americans and Indians during retirement will not be raised at all by the introduction of such a system because they will bequeath all of their pension benefits to their children.

We turn finally to the implications of our findings for inheritance taxes and other mechanisms for alleviating the intergenerational transmission of wealth inequalities. Our finding that the Japanese and Chinese are predominantly selfish implies that wealth inequalities are less likely to be passed on from generation to generation in Japan and China because selfish households will leave less bequests and because they will leave a bequest to their children only if there is a *quid pro quo* from their children

such as care, attention and/or financial support during old age, meaning that bequests from parents to children will be at least partly offset by intergenerational transfers in the other direction (namely, the monetary value of care, attention, and/or financial support from children to parents). By contrast, our finding that Americans and Indians are predominantly altruistic implies that wealth inequalities are more likely to be passed on from generation to generation in the United States and India because Americans and Indians will leave more bequests and because they will leave a bequest to their children even if there is no *quid pro quo* from their children, meaning that their bequests will be less likely to be offset by intergenerational transfers in the opposite direction.[4] Furthermore, Horioka (2009) finds that, in Japan, the correlation between bequests received and life cycle wealth is negative, meaning that individuals who receive fewer bequests accumulate more life cycle wealth, which will alleviate the intergenerational transmission of wealth inequalities. Thus, our findings imply that there may be a greater need for estate taxes and other mechanisms for alleviating the intergenerational transmission of wealth inequalities in the United States and India than in Japan and China.

It follows that activist government policies will be successful in achieving their objectives (for example, tax cuts financed by the issuance of government bonds will be effective in stimulating consumption and the economy as a whole and the introduction of a pay-as-you-go public old-age pension system will be effective in raising living standards during retirement) in Japan, China, and other countries with selfish denizens but not in India, the United States, and other countries with more altruistic denizens. By contrast, estate taxes and other policies that alleviate the intergenerational transmission of wealth inequalities will be more necessary and desirable in India, the United States, and other countries with altruistic denizens than in Japan, China, and other countries with more selfish denizens.

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Table 1: An International Comparison of the Strength of Bequest Motives

The proportion of respondents holding each view (%)	China	India	Japan	U.S.
I plan to leave an inheritance to my child(ren) no matter what	34.24	68.98	26.67	58.17
I plan to leave an inheritance to my child(ren) under certain conditions	22.11	18.07	4.76	2.60
Those with an actual bequest motive	56.35	87.05	31.44	60.77
I want to leave an inheritance to my child(ren) but I won't because I don't have the financial capacity to do so	2.88	8.83	18.12	12.41
Those with an actual or potential bequest motive	59.23	95.88	49.56	73.18
I do not plan to make special efforts to leave an inheritance to my child(ren) but will leave whatever is left over	35.96	3.50	47.96	25.00
I do not plan to leave an inheritance to my child(ren) under any circumstances	4.81	0.62	2.48	1.82
Those with only a passive bequest motive or no bequest motive at all	40.77	4.12	50.44	26.82
Total	100.00	100.00	100.00	100.00
Number of observations	2264	1928	4514	3464

Notes: The figures show the proportion of respondents excluding those who did not respond to this question.

Data Source: 2012 Preference Parameter Survey of Osaka University (Kurashi to Konomi to Manzokudo ni tsuite no Anke-to Chousa) except for rural China, for which the 2010 survey was used. The results for the urban and rural surveys for China and India were weighted by the proportions of the urban and rural populations in each country (52/48% in China and 32/68% in India).

Table 2: An International Comparison of Stated Bequest Motives

The proportion of respondents holding each view (%)	China	India	Japan	U.S.
Altruism				
I plan to leave an inheritance to my child(ren) no matter what	35.25	75.66	32.58	66.41
I do not plan to leave an inheritance to my child(ren) under any circumstances because doing so may reduce their will to work	2.15	0.14	1.41	0.56
Responses consistent with altruism	37.40	75.80	33.98	66.97
Self-Interest				
I plan to leave an inheritance to my child(ren) only if they provide care (including nursing care) during old age	10.10	11.49	4.06	2.08
I plan to leave an inheritance to my child(ren) only if they provide financial assistance during old age	5.17	5.95	0.70	0.63
I do not plan to make special efforts to leave an inheritance to my child(ren) but will leave whatever is left over	37.03	3.84	58.58	28.54
I do not plan to leave an inheritance to my child(ren) under any circumstances because I want to use my wealth myself	2.80	0.54	1.62	1.52
Responses consistent with self-interest	55.10	21.82	64.96	32.76
Dynasty Building				
I plan to leave an inheritance to my child(ren) only if they carry on the family business	7.50	2.38	1.06	0.26
Responses consistent with dynasty building	7.50	2.38	1.06	0.26
Total	100.00	100.00	100.00	100.00
Number of observations	2071	1866	3696	3034

Notes: The figures show the proportion of respondents excluding those who did not respond to this question and those who replied that they want to leave a bequest to their child(ren) but won't because they don't have the financial capacity to do so.

Data Source: 2012 Preference Parameter Survey of Osaka University (Kurashi to Konomi to Manzokudo ni tsuite no Anke-to Chousa) except for rural China, for which the 2010 survey was used. The results for the urban and rural surveys for China and India were weighted by the proportions of the urban and rural populations in each country (52/48% in China and 32/68% in India).

Table 3: An International Comparison of Bequest Division Plans

The proportion of respondents holding each view (%)	China	India	Japan	U.S.
Altruism				
I plan to divide my inheritance equally among my children	70.28	84.17	72.67	92.55
I plan to leave more or all to the child (children) who has less earning capacity	6.42	0.04	4.39	1.38
I plan to leave more or all to the child (children) who has greater needs	1.95	0.13	3.90	3.06
I plan to leave more or all to the child (children) whom I like more	0.90	0.00	0.75	1.43
Responses consistent with altruism	78.79	84.35	80.12	97.58
Self-Interest				
I plan to leave more or all to the child (children) who lives with me	4.11	6.99	14.38	0.94
I plan to leave more or all to the child (children) who lives near me	1.84	4.63	4.07	0.74
I plan to leave more or all to the child (children) who helps me with housework	2.09	1.96	4.49	0.69
I plan to leave more or all to the child (children) who provides nursing care	11.60	5.63	12.82	0.54
I plan to leave more or all to the child (children) who provides financial assistance	2.56	1.25	4.85	0.59
Responses consistent with self-interest	19.28	15.63	20.46	2.52
Dynasty Building				
I plan to leave more or all to the child (children) who carries on the family business	4.25	0.41	5.04	0.10
I plan to leave more or all to my eldest son or daughter even if he/she does not live with me, does not live near me, does not help me with housework, does not provide nursing care, does not provide financial assistance, and does not carry on the family business	3.82	0.07	2.83	0.74
Responses consistent with dynasty building	7.85	0.48	7.51	0.84
Total	105.92	100.46	108.08	100.94
Number of observations	733	1780	3118	2457

Notes: The figures show the proportion of respondents excluding those who did not answer the question about stated bequest motives, those who replied that they would not leave a bequest, and those who have zero or one child. Those who responded that they would divide their bequest unequally but did not answer the follow-up question about bequest division were assumed to have the same distribution of answers for the follow-up question as those who answered the follow-up question. The totals do not necessarily add up because mutliple responses are allowed.

Data Source: 2012 Preference Parameter Survey of Osaka University (Kurashi to Konomi to Manzokudo ni tsuite no Anke-to Chousa) except for rural China, for which the 2010 survey was used. The results for the urban and rural surveys for China and India were weighted by the proportions of the urban and rural populations in each country (52/48% in China and 32/68% in India).

Table 4: An International Comparison of Religiosity				
	China	India	Japan	U.S.
The degree of religiosity (on a scale of 1 to 5)	na	3.66	1.66	2.99
The number of observations		1928	4556	3559
The proportion of believers in God	86-94	94-98	35-36	91-97
Note: "na" denotes "not available."				
Data Source: First 2 rows: 2012 Preference Parameter Survey of Osaka University (Kurashi to Konomi to Manzokudo ni tsuite no Anke-to Chousa). The results for the urban and rural surveys for India were weighted by the proportions of the urban and rural populations (32/68%). The order of the responses was reversed so that 5 indicates that it is particularly true for him/her and 1 indicates that it does not hold true at all for him/her. Last row: Zuckerman (2005).				

Endnotes

[1] Two additional assumptions concerning household preferences are (1) that the household derives utility not only from its own consumption but also from its wealth (as assumed in the "capitalist spirit" or "wealth-in-the-utility function" model of Carroll (2000)), and (2) that the household derives utility not only from its own consumption but also from the size of its bequest (as assumed in the "joy of giving," "warm glow," or "bequest-as-consumption" model of Abel and Warshawsky (1988)). These assumptions are not discussed in detail here because they do not have clear implications for bequest motives and bequest division (except that assumption (2) implies that households will leave bequests to their children even without any *quid pro quo*, as in the case of altruistic preferences).

[2] The term "dynasty model" is often used to refer to what we call the "altruism model" but we use the term in a different sense. What we call the dynasty model is also called the "primogeniture model" if it is the eldest son who carries on the family line and/or the family business (Chu (1991)).

[3] Another possibility is that selfish parents who want their children to take care of them in old age will set an example by taking care of their own elderly parents in front of their children (the so-called "demonstration effect" of Stark (1995) and Cox and Stark (1996)). In this case, the *quid pro quo* for care given to one's elderly parents will not be bequests received from one's elderly parents but rather care received from one's children.

[4] Note, however, that altruistic parents will leave more bequests to less affluent children, meaning that inter-sibling inequalities will be alleviated to a greater extent in the case of altruistic parents. I am indebted to an anonymous referee for this point.