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WHY DO PEOPLE BEQUEATH?

The question of why people would like to, or would not wish to bequeath, does not lend itself to an easy answer. This question has hardly been investigated by social scientists in Poland. The aim of this article is to present a critical and in-depth review of the foreign literature on bequest behaviour, and to advance propositions for subsequent research. The up-to-date state of the art knowledge leads us to the hypothesis that "bequests are left accidentally." Possible approaches to testing the hypothesis are discussed with a particular focus on how informative the making of a will and the subjective probability to bequeath might be. We conclude that the up-to-date attempts to answer why people bequeath and whether people want to bequeath remain unsuccessful. Further research should include a study on the prevalence of inheritances accompanied with a will; intertemporal analysis linking bequest behaviour and will-making with the subjective probability to bequeath; and finally the development of the theoretical model accounting for bequest behaviour yielding testable claims.

Keywords: bequest behaviour, planned bequests, accidental bequests, making a will

1. INTRODUCTION

The question of why people bequeath has occupied social scientists for a long time, but Polish literature on this issue is rather limited. The aim of this article is to present an in-depth, up-to-date review of the foreign literature on bequest behaviour, and to advance a series of propositions and hypotheses for subsequent testing.

Bequest behaviour could be approached as a casual economic problem of utility maximization. The motivation to bequeath can be expressed in terms of the utility function derived from bequests. Numerous motives to bequeath considered in the literature yield different utility functions. These motives will be presented and discussed in this article in detail.

It is important to note that the motives underlying bequest behaviour are difficult to test empirically. The sole fact of bequeathing does not imply that there was a motivation to bequeath. Perhaps bequests are left by accident when individuals fail to consume all the accumulated wealth prior to death.

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If that is the case, there would be no utility derived from bequests whatsoever.

Therefore, the critical part of the analysis of bequest behaviour is to identify which of the following two questions is correctly posed: "Why do people want to bequeath?" or "Why do people bequeath despite not wanting to bequeath?" If people bequeath by accident, accounting for bequests needs a different approach than if people choose to bequeath. In the latter case, microeconomic methods can be used to model bequest behaviour and a subsequent analysis of particular motives to bequeath should be conducted.

In this article it is shown that there are a number of approaches to both planned and accidental bequeathing. Their usefulness in accounting for bequest behaviour is critically assessed and their limitations are discussed. Furthermore, the hypothesis that "bequests are left accidentally" is derived from the review. Even though the hypothesis is not directly testable, the proposition of indirect testing is provided. Data restrictions for the testing are discussed and further research directions outlined briefly.

This article is organized as follows. Section 2 provides a review of the reasons for bequeathing, yielding a hypothesis that bequests are accidental. Section 3 delivers proposals for the indirect testing of the hypothesis; it discusses when and how to decide that bequests are not accidental by introducing wills as an explicit indicator of bequeathing plans and a subjective probability approach. The final section concludes briefly and outlines ideas for further research.

2. REASONS FOR BEQUEATHING

An important contribution to the discussion on the motivations underlying bequest behaviour was made by Hartung's (1976) widely cited paper that credits primogeniture to natural selection. (Primogeniture is a system of inheritance by the eldest son.) Since men can pass on their own genes continuously throughout their lifetime, they have a comparative advantage over women in reproduction. The reproductive success of post-reproductive adults can be enhanced by transferring wealth to children, especially to sons as they are more effective than daughters in the transmission of one's genes. If so, patrilineal inheritance is a strategy that evolved in natural selection processes (Hartung, 1976). Both the method and logic of the above reasoning were criticized extensively (see Comments by Abelson and others in Hartung, 1976). However, they concur that

behavioural traits may be genetically controlled (Trigg, 1982) and that inherited resources positively affect reproductive success (for example, Mace, 1999); genes affect human behaviour (Trigg, 1982).

A general question arises whether it is culture or nature that underlies human motivations. There is a tendency to reduce all psychological, social and cultural phenomena to evolutionary explanations (see Pinker, 2005; Wright, 1994). According to some observers, there is "no alternative to evolutionary analysis with respect to origins and maintenance of certain primary beliefs and preferences shaping human action" (Winterhalder and Smith, 1992). Bequeathing may be such a primary belief. Latour (2004) argues that the distinction between nature and culture is artificial. No phenomenon is reducible to pure culture or to pure nature; this applies also to bequest behaviour. For this reason, reduction is not a proper method for the analysis of human behaviour (Granovetter, 1985).

Nonetheless, the concepts of nature and culture are helpful in organizing our knowledge about bequest behaviour presented in this Section. Subsection 2.1 discusses reasons for bequeathing that emphasize the role of nature and Subsection 2.2 those reasons that emphasize the role of culture. Subsection 2.3 presents an alternative approach to bequest behaviour, arguing that there are no motives to bequeath at all, and people leave bequests by accident. Subsection 2.4 succinctly summarizes the review.

2.1. Nature

It is not enough to say that bequeathing is driven by genetic forces since, to some extent, all behaviour is. A deeper insight into the natural selection mechanisms and their effect on animal and human behaviour was provided by biologists investigating the evolution of non-selfish acts (Hamilton, 1964; Trivers, 1971). These biological concepts did not take into account the motivation structures underlying behaviour (Bertram, 1982), but inspired economists to do so. Two main motives for bequeathing have been formulated: altruism (Becker, 1974) and strategic considerations (Bernheim et al., 1985).

Altruism

According to Hamilton (1964), altruism has evolved in the kin selection processes and its strength depends positively on genetic relatedness. It implies that parents are most altruistic towards their own children. The kinship altruism was modelled by Becker (1974) in terms of utility function

$U_a = U(C_a, U_o(C_o))$ that an altruist derives from their own consumption C_a and from others' utility U_o, which in turn depends on their consumption C_o. The maximization of such a utility function subject to the budget of altruist $Y = C_a + C_o$ may lead to a transfer from the altruist to others. Since altruism is most pronounced towards children, transfers from parents to children will be observed most frequently. Parents in Oceania favour their biological children over the adopted ones as far as the division of bequest is concerned (Silk, 1980), which is in line with the kinship altruism as a motive for bequest.

Parental altruism provides an explanation for the transfer of wealth (see Stark, 1995) and thus is recognized as a motive for bequeathing (see, for example, Barro, 1974; Wilhelm, 1996), but it fails to predict whether one would choose bequests as opposed to inter-vivos transfers. It is worth emphasizing that the difference between bequests and inter-vivos transfers cannot be ignored. One may treat inter-vivos transfers as support provided in a particular situation as a means of ad hoc aid, but bequests can hardly be interpreted as aimed at solving a particular financial problem. Moreover, altruistic transfers are compensatory, which means that they are inversely proportional to the utility of the beneficiary (and thus the beneficiary's consumption). The empirical research on the compensatory nature of bequests is ambiguous, as some results show that parents tend to provide equal bequests to their children (Menchik, 1980) even if the earnings of siblings differ (Hurd, 1997). Others find support for compensatory bequests among siblings in the US (Tomes, 1981).

Kinship altruism predicts that the more altruistic the parent, the greater the amount of transfers from the parent to the children. The more altruistic the parent, the greater the bequest the parent leaves, *given* a constant ratio between bequests and inter-vivos transfers. There is evidence that the relations between generations of older people and their adult children have an altruistic nature within and beyond the family (Logan and Spitze, 1995). Altruism cannot be ignored as a reason for bequeathing, even though it fails to fully explain bequest behaviour. According to psychological studies on prosocial behaviour, there are multiple motivations operating simultaneously that underlie human behaviour (Rutkowska and Szuster, 2008).

Strategic considerations

Group selection is an evolutionary mechanism that is capable of also explaining transfers between unrelated individuals. Trivers (1971) analyzed

natural selection in an environment where organisms are characterized by a relatively long lifetime, interact repeatedly with the same small set of individuals regardless of their genetic relatedness, and are equally dependent on the interaction. In such circumstances, a "reciprocal altruism" is likely to evolve (Trivers, 1971). "Reciprocal altruism" is exhibited because a transfer given will be rewarded with a return transfer by a counterpart in the future. Such symbiosis is observed in the cleaning behaviour between different species of fishes, the warning calls of birds, and in human behaviour (Trivers, 1971). Stark (1999) discussed conditions under which interaction with strangers and siblings leads to the spread of prosocial behaviour over the entire population.

A distinction between the motives underlying kinship altruism and "reciprocal altruism" is that "reciprocal altruism" is not exercised for the sake of improving the condition of the counterpart, which is the case in kinship altruism, but for the sake of benefits to be received in the future from the counterpart. In social science, "reciprocal altruism" is not classified as altruism at all, but constitutes a separate motive called exchange (Wilson, 1975) or strategic consideration (Bernheim et al., 1985). Bernheim et al. (1985) modify the standard altruistic model (Becker, 1974) by adding children's actions *A* (attention, care, visits to the parent, etc.), yielding the following utility function of an altruist with strategic considerations: $U_a = U(C_a, A, U_o(C_o, A))$. It is claimed that planned bequests provide an incentive for children to take care of elderly parents. Strategic bequests will be transferred to children only if the children meet parental expectations concerning *A*, otherwise the bequeathable wealth will be transferred to a third party (Bernheim et al., 1985). Only a reliable threat of disinheritance might induce selfish children to provide attention and care to elderly parents if bequests are exchanged for attention. Usually, a disinherited child may claim the right to a share in the bequest (the forced share). Once the forced share is substantial, which is the case in Europe, the threat of disinheritance is not credible, and thus it cannot affect children's behaviour effectively. Also parental altruism weakens the credibility of the threat to disinherit (Cox and Stark, 1994). Even though the main assumption of the model is disputable, the model is still able to predict the amount of bequests left to children.

The hypothesis of strategic considerations does not reject altruistic motivations to bequeath – it introduces an intentional and strategic manipulation of incentives. Some empirical studies support the hypothesis that bequests are partly used by parents to induce their offspring to provide

attention (Angelini, 2007), whereas other studies reject the strategic bequest motive (Tomes, 1981; Perozek, 1998). Altonji et al. (1992) tested whether transfers are motivated by altruism or by strategic considerations and they found empirical support for the altruistic links within the extended family, but there is still no consensus on the motive of transfers (Laferrère and Wolff, 2006).

2.2. Culture

There are other mechanisms leading to the prevalence and survival of an altruistic gene (see Smith, 1982), but the two discussed above appear to be the most prominent ones (Piliavin and Charng, 1990). There is no doubt that human behaviour can be described in terms of evolution (Poleszczuk, 2004). The hypothesis of genetic roots of altruism cannot be rejected (Okasha, 2002), but it fails to fully explain human decisions as they involve, for example, ethical considerations as well. Let us recall the categorical imperative by Kant (1788), who claimed that people should and are able to act according to the transcendental practical reason that is independent from any natural instinct. The incorporation of a cultural perspective in the framework allows to avoid oversimplifying assumptions of family as a domain for an exchange of goods and services (Chiappori, 1988), or an altruistic harmony (Becker, 1976), and delivers reciprocity, wealth, reputation, replication effect, and other motives as potential explanations for bequeathing.

Reciprocity

The concept of reciprocity, even though similar to strategic considerations, emphasizes the cultural aspects of gift-giving after Mauss (1950). Reciprocity, defined as treating others as they treat you (Kolm, 2006), recognizes intentional (McIntyre and Smith, 1984), communicational (Habermas, 1981), and dynamic aspects of giving, aiming to cover such complex phenomena as respect, fairness, gratitude, obligation, and commitment. The reduced model of the return gift r captures the initial gift g, altruism a, balance b, and continuation c, yielding $r = r(g; a, b, c)$. Thus, there are three ideal types of reciprocity:

- liking (altruistic) reciprocity, which involves all feelings of any degree of liking, from care to love (Kolm, 2006);
- balance (comparative, matching) reciprocity, where each gift is followed by a return gift of a similar value in order to restore the balance;

- continuation (selfish) reciprocity, where gifts are a means of sustaining the interaction.

"Balance reciprocity" attributes human actions entirely to the sense of justice, which might offer an explanation to bequest behaviour, provided that there is a moral obligation to bequeath. The phenomenon of liking is essential for individuals involved in the reciprocal gift-giving as it is only then that the gifts exchanged stop being just a moral duty and become a joy. Gifts are given out of one's own free will to benefit a counterpart, but also in order to signal liking. The signaling feature of liking reciprocity is especially relevant where bequests are concerned. Bequests are the very last gifts from parents to their children, and thus can be treated as the final expression of parental love, gratitude, and care for the offspring (Cox and Stark, 2005). However inspiring the concept of reciprocity is, it fails to predict whether a bequest will take place, and if yes, what will be the optimal amount of bequest.

Wealth

The fact that bequests are typically observed among the wealthiest (Menchik and Jianakoplos, 1998) is especially pronounced in the US, where the greatest dynasty fortunes date back to the Civil War era (Masson and Pestieau, 1997), and in aristocratic England (Spring, 1993). Private ownership is a necessary condition for bequeathing. In feudal societies, such as Poland in the 11th and 12th century, bequests could not be universal as only knights fulfilling their military duties could pass down their wealth (land) to children (Bardach et al., 1997). Those who are not able to consume their own wealth in their lifetime will bequeath, even if there is an access to the annuity market and if there was no uncertainty about the time of death (Masson and Pestieau, 1997). Wealth as a bequest motive predicts a positive relation between the wealth of a donor and the amount of bequests. The wealth motive fails to predict optimal planned bequests. It ignores the fact that leaving a bequest may be a goal to be reached. Wealth is held not only for its own sake, but there is also a desire to transfer the purchasing power over time and possibly over generations (Ioannides and Sato, 1987). According to Tomes (1981), 40−45% of individuals receive some inheritance. This group is heterogeneous and the assumption that it comprises only heirs of individuals so well-to-do that they failed to consume their accumulated wealth does not hold. Furthermore, there are societies where wealth is transmitted mainly through bequests, and there bequests are observed even among the poorest (Mace, 1999).

Reputation

Reputation is a strong cultural motive of human behaviour, as the quest for approval is one of the most pronounced mechanisms of moral choices (Smith, 1759), regardless of whether it emanates from self-interest (Hobbes, 1651), or from one's reason (Hume, 1740). One adjusts one's own behaviour to the norms that govern societies. If there is a norm of bequeathing to children and it is external (that is, shared by most members of the society (Rutkowska and Szuster, 2008)), then there is a need to obey the norm. Disinheritance is treated as a penalty, and in most societies children's rights to parental assets are protected by law. These observations might imply that, in general, there is a social norm that leaving bequest to one's own children is a just way of the disposition of the accumulated wealth. In the case of bequests, reputation concerns the deceased, which makes the concept disputable as one cannot enjoy reputation when dead. If so, then reputation would not have any impact on bequest behaviour. However, one may derive utility from events that will take place in the future, even if distant and beyond one's lifetime. The concept of "post-mortem reputation" (Lundholm and Ohlsson, 1999) states that individuals care while alive about their own reputation after death. Lundholm and Ohlsson (1999) credit the equal sharing of bequests to "post-mortem reputation" that induces individuals to obey the social norm of equal division of bequests among children. The "post-mortem reputation," in the original setting, concerns only those who already plan to bequeath and does not affect the bequest behaviour of others (Lundholm and Ohlsson, 1999). Moreover, it credits the decision on equal bequests to an external social norm, but does not explain why and how much wealth will be bequeathed. It seems that one may treat "post-mortem reputation" as a motive to bequeath if there is a social norm to bequeath. Furthermore, the fact that individuals may enjoy events beyond their lifetime plays a crucial role in bequest behaviour, even if there is no external norm to bequeath, because individuals could simply care about the distant future of their dynasty.

Replication effect

A replication effect is the other side of the demonstration effect, and thus these two can be discussed together. The demonstration effect predicts that in a family consisting of three generations, parents set an example to their children by treating their own parents in the desired way so that the children would replicate it later on towards the parents (Cox and Stark, 1994 and

2005). Once the proper behaviour is defined as providing care to the elderly, the demonstration effect facilitates transfers of attention, care and money to the grandparents, while the replication effect facilitates such transfers from children to parents. Empirical results provide support for the hypothesis in Spain (Giménez et al., 2007) and for Romanian young girls (Mitrut and Wolff, 2009). In the absence of grandchildren, the demonstration effect does not operate since there is no one to whom the behaviour is to be taught (Cox and Stark, 2005). The replication effect influences not only children, but may also develop a sense of gratitude in grandparents that were taken care of. The gratitude may be the motive for bequeathing, but remains conditional on having grandchildren. In the two cases of strategic considerations and the replication effect, one may treat the care provided as services that are repaid through bequests. However, there is a substantial difference between the two models inasmuch as in the case of the replication effect, the bequests are the consequence of the attention received, while in strategic considerations the provision of care is a consequence of the promised bequests. The replication effect explains why bequests are planned, but fails to predict the amount of bequests.

Other reasons

The motives discussed above do not exhaust the list of reasons for planned bequeathing. The hypotheses of warm-glow (Andreoni, 1990), inequity aversion (Fehr and Schmidt, 1999), relative deprivation (Sen, 1976; Yitzhaki, 1979), and dishonesty aversion (Brandts and Charness, 2003; Gneezy, 2005) are mentioned in the literature explaining gift-giving, but they provide little illumination as to why exactly people bequeath. The warm-glow concept assumes that the act of giving brings utility to the donor, but in the case of bequests the donor is dead, and thus unable to enjoy any warm-glow. A post-mortem warm-glow would be a more suitable approach to bequest behaviour. Inequity aversion is based on the observation that people care about inequity (Zizzo and Oswald, 2000), which inspires relatively wealthy parents to provide transfers to children, thereby reducing the inequity. Assuming that parents are able to define a reference group for their child and assess the relative deprivation of the child, then parents may be motivated to amass wealth in order to provide a bequest intended to reduce the relative deprivation of the child. This explanation is more suitable for inter-vivos transfers rather than bequests due to the timing and, in particular, the public nature of bequests. If children differ in terms of their income, an unequal division of bequests reveals information on those

incomes and bequests might fail to reduce relative deprivation (Stark and Zhang, 2000). Dishonesty aversion might explain bequeathing if wealth was gained at the child's expense. However, this is rarely the case and, therefore, the presumed preferences for honesty can hardly be seen as a general motive for bequeathing.

2.3. Accidental bequests

The main motives behind the will to bequeath were discussed above. The question why there would be such motives at all is a question of human nature. Some scientists claim that there are neither motives nor even any intention to bequeath, and that wealth is left to heirs by pure accident. The Life Cycle Hypothesis (LCH) (Modigliani and Brumberg, 1954) explains bequests via the addition of the precautionary motive for saving (Yaari, 1965; Levhari and Mirman, 1977), arising from the uncertainty of the time of death (Modigliani, 1988). Davies (1981) and Abel (1985) developed general models assuming an uncertain lifetime and constant relative risk aversion, which are sufficient conditions for bequests to occur despite the lack of a bequest motive. An individual aged *t* that survives to age τ with a probability $P(\tau \mid t)$, where the maximum lifetime equals *T*, maximizes the expected utility $\int_t^T P(\tau \mid t)\alpha(t)U(C(\tau))d\tau$ derived from consumption $C(\tau)$ at time τ with the rate of time preference $1-P(\tau \mid t)\alpha(t)$. The model yields the optimal consumption path throughout the lifetime, which is positive as long as one does not reach the maximum age *T*. Whenever one dies at time $D<T$, the planned consumption $\int_D^T C(\tau)d\tau$ becomes a bequest, accidentally left to the heirs. Even though the model predicts the amount of the bequest, empirical findings prove the predictions wrong (Hurd, 1997) and reject the LCH as the explanation for bequests.

Although the LCH is the most important explanation of the accidental bequests in the literature, it is not the only one. The presence of annuity markets modifies the framework analyzed in the LCH as the individual savings chosen, subject to the maximum age *T*, are substituted with the annuitization of savings subject to the mean life expectancy at a given age (Milevsky and Young, 2007), which implies that all the resources are consumed before death. Although the annuitization solves the longevity risk, it brings the risk of losing the liquidity of assets (that is, "the investment risk"). The risk-averse elderly are unlikely to annuitize all their savings, as

they may want to keep resources in a "reserve fund" in case large and unpredicted expenses occur (Rocha and Thornburn 2007). For example, such expenses might be due to medical services in the case of poor health at the end of life or due to transfers provided to children in the case of their children's severe financial troubles. Since both the cases mentioned before can be hardly covered by insurance, the optimal retirement rule would consist of the two elements: annuities and a "reserve fund" (Rocha and Thornburn 2007; Rocha et al., 2011). In this setting, the resources accumulated in a "reserve fund" are likely to be left accidentally as bequests. To the best of our knowledge, there are no empirical studies testing the impact of "reserve funds" on bequest behaviour.

2.4. Why do people want to bequeath?

The modern approach to human behaviour explains the evolution of different behavioural traits, though they remain environment-specific (Dunbar, 1982). In stationary populations, where parents die shortly before children reproduce, and tools are the only wealth and the only form of capital, bequeathing may be treated as a result of evolutionary adaptation. If any of the environmental elements changes, the behaviour adjusts, but not instantaneously. For example, an increase in life expectancy may result in a shift of the time of the intergenerational transfers from bequests to inter-vivos transfers. Furthermore, once human capital becomes an important factor of production, other channels of transmission of capital to children may be considered. In order to understand the possible adjustments of bequest behaviour to changes in environment, one needs to understand whether, why, and how much people plan to bequeath.

The theoretical approaches to bequest behaviour discussed in detail above show that none of the existing theoretical concepts accounts for planned and accidental bequests. The hypothesis stating that "bequests are left accidentally" needs testing. If the hypothesis is confirmed, bequest motives do not need further investigation. If the hypothesis is rejected, the model of accidental bequests is insufficient for an explanation of bequest behaviour. Then, the motives for bequeathing present in the literature demand empirical testing. Possibly the set of already recognized motives needs to be completed by omitted relevant motives.

If a non-negligible proportion of bequests are left intentionally, there is a need for a model that predicts optimal planned bequests, recognizes the distinction between inter-vivos transfers and bequests, and yields several

testable claims concerning bequest behaviour. Such a model should combine both nature and culture, but not in an additive sense, so that the components of the utility function cannot be reduced either to pure nature or to pure culture. An example of an attempt to build such a model can be found in a dissertation by Nicińska (2011).

3. WHEN AND HOW TO TELL THAT BEQUESTS ARE NOT ACCIDENTAL?

The reasons underlying bequest behaviour are not fully revealed by the behaviour of testators. The one who wishes to leave a bequest but is constrained by poor resources, or the one whose motivation is not strong enough to assure the interior optimum choice, will not bequeath despite the presence of such a wish. An individual unwilling to bequeath might leave nothing, but is also likely to bequeath accidentally. The intuition in support of the accidental nature of bequests suggests that the uncertainty concerning the time of death makes the risk-averse elderly save for future needs (Davies, 1981). Since typically one cannot predict the exact date of one's death, one is unlikely to consume all one's wealth before dying, even when there is no plan to bequeath at all.

Being impossible to verify the theoretical hypotheses that credit bequests to different motives directly, numerous indirect tests were conducted. Most of them have not provided sufficient support for the presence of an operative bequest motive (Hurd, 1997). On the other hand, the Life Cycle Hypothesis predicting dissaving during the last period of life was rejected by cross-section data as the elderly usually keep saving (Blinder et al., 1981) or dissave but less than the hypothesis would predict (Kotlikoff and Summers, 1988). This fact might be credited to the plan to bequeath, especially if one controls for limitations coming from the nature of cross-section data that treat different cohorts as if they were the same.

Declarations about saving motives do not contribute much to the knowledge on plans to bequeath. Davies (1981) reports that 4% of respondents in the US in 1962 cited "providing an estate" as a saving objective. Even among the wealthiest American households (with incomes above $10,000 in 1966 dollars), that were most likely to leave a bequest, only 23% of all affluent families declared saving to make a bequest (Barlow et al., 1966). Page's (2003) studies on the US tax law based upon the Survey of Consumer Finances (1983, 1986) concluded with a statement that at least

some fraction of bequests is planned. Similar results were obtained for Japan as the saving portfolio suggests that the Japanese tend to keep their bequeathable wealth in assets that are subject to lower inheritance tax rates than other forms of assets (Barthold and Ito, 1992). These indirect tests of the accidental nature of bequests are contaminated by factors other than pure bequeathing intentions, thus calling for a proper way of verifying plans to bequeath.

To sum up, the distinction between individuals willing and unwilling to bequeath cannot be made on the basis of observed bequests. People willing to bequeath do not necessarily bequeath and vice versa; even those who do not wish to bequeath may leave a bequest. The answer to the question why people bequeath is not simply "because they want to". Moreover, we are unable to ask the donors whether the observed bequest is consistent with his or her will as it is executed after he or she has passed away. The mechanisms that stand behind bequest behaviour are difficult to investigate due to data scarcity and existing studies do not provide a clear answer either to whether people want to bequeath or to why people bequeath.

The crucial distinction that should be made when analyzing bequest behaviour is that leaving bequests can be either accidental or planned, and there is no straightforward way to distinguish between the two. In order to address this problem, we propose to use the act of making a will as an explicit indicator that bequeathing is planned, which makes it a good instrument for identifying planned bequests. However, the information on making wills may underestimate the size of the population willing to bequeath, since making a will is not a necessary condition for the transmission of wealth after death. The potential downward bias increases the strength of the proposed test.

The individual decisions on bequeathing can be written down in the form of a will. However, this is only a part of the story, as in all countries there is a bequest law that operates as a default rule in the absence of a will. Possibly all those who plan to divide their own bequeathable wealth according to the local law, are less likely to make a will, especially if the law represents social preferences over the division of bequests. Usually the law divides bequests equally between all the children and this fact contradicts the predictions of compensatory transfers motivated by parental altruism (Becker, 1976). Most of the observed bequests are shared equally among the siblings (Menchik, 1980) and this fact may contribute to the belief that bequests are accidental. On the other hand, there are reasons to treat bequests separately from other transfers and equal sharing may be the optimal choice

that does not relatively deprive any child (Stark, 1998). If so, there would be little need for making an explicit will, as the implicit legal rules are in line with the plans of the testator. Moreover, tighter and more trustful family relations facilitate the substitution of handwritten wills with oral ones (Ariés, 2007), that are rarely registered.

Despite the fact that one may plausibly argue that democratic law reflects the preferences of the majority, there is possibly a lot of heterogeneity as far as bequest behaviour is concerned. Thus, the law may in effect limit the testamentary freedom of choice (at least for some part of the population) by defining a fixed share of the disposable bequeathable wealth where the decedent leaves at least one child and a surviving spouse, as it is customary for children and the surviving spouse to be granted a statutory share, independently of the will made by the deceased (Angelini, 2007).

Making a will does not require registration with any authority, as it is a valid legal document once the one who wrote it dies, unless it is not signed by the author or the decedent was mentally ill or legally incapacitated while drawing up the will. Usually, registering a will involves certain costs, if not financial, then at least the hassle or psychological distress, which may, to some extent, prevent individuals from making a will. The available statistics on the number of wills made report only the registered wills, thus one may expect that the overall number of wills made exceeds the reported figure. However, registering a will has an important advantage as it is also a confirmation of the legal capacity of a donor. Without such confirmation there is the possibility to question the will. For this reason, one should expect that the downward bias of all wills made estimated by the registered ones is not overwhelming.

International comparisons of fractions of population with a will should be done carefully since there are different regulations on the minimum age at which one may make a will. The age ranges from 14 to 18 years in continental European countries, while in the UK there is no age limit (Pazdan, 2005). If wills are made late in life, then minimum age limits are negligible. Moreover, all those who would like to bequeath but are not wealthy enough to do so, are not going to make a will due to the lack of the operative bequest motive in spite of the presence of a general bequest motive.

The proposed empirical analysis operationalizes operative bequest motive with the act of making a will. Assessing the proportion of individuals who have made a will indicates the minimum proportion of individuals planning to bequeath. This allows indirect testing of the hypothesis that “bequests are left accidentally.” Empirical results rely on the availability and credibility of

the administrative data on registered and unregistered wills that are subject to different state-specific practices. For example, in Poland, information on registered wills can be recovered from the Polish Ministry of Justice records, provided the permission to access Ministry archives is granted, while no information on executed wills is available at the national level. An alternative data source could be private companies and non-government organizations. However, their credibility is varied and not always easy to verify.

Another source of the data on wills are surveys asking respondents whether they have made a will. This however, may be misleading if wills are made close to the end of life. A somewhat different insight into the prevalence of making a will can be gained from the so called "end-of-life" interviews. These special interviews are conducted with the deceased respondents' proxies, usually close family members. Proxies are asked whether the deceased respondent had a will. In the case of interviews conducted with a proxy, the measurement error is expected to be larger than in the case of interviews conducted directly with a respondent. So is the non-response rate, as not all proxies know all the details of the deceased respondent's bequests. Furthermore, not all deceased individuals have a proxy participating in the "end-of-life" interviewing. What is more, not all the deceased respondents are known to be deceased and included in the "end-of life" sub-sample. In addition, the sub-sample of the "end-of-life" interviews is relatively small and not representative for the cohort as long as a substantial part of the cohort's members remain alive. To sum up, the straightforward question on making a will asked to respondents while they are still alive reduces measurement error and non-response due to the missing information on the respondent's death, lack of proxy, and the proxy's limited information on the deceased respondent's bequest behaviour. Unfortunately, the direct question on will-making may be misleading if wills are made late in life.

Finally, a method of subjective probabilities applied to bequest behaviour might prove useful. Responses to questions on the chances to bequeath, given the amount of wealth, are treated as individual subjective probability to bequeath. According to the empirical research on the risk aversion of the elderly, it is large but finite. The estimates of risk aversion differ. Kotlikoff and Spivak (1981) in their simulation assume the highest risk aversion at the level of 1.75, while Meyer and Meyer (2005) estimate that relative risk aversion may reach even 50. However high the estimates are, they are finite. For this reason, an indirect way of asking individuals whether they plan to

bequeath, is to ask about the probability of leaving a bequest. Assuming finite risk aversion, all those who report that such a subjective probability equals one may be treated as willing to bequeath (Fink and Redaelli, 2005). Nonetheless, the interpretation of the subjective probability to bequeath is different than the subjective probability to buy a car (as in the original setting by Manski, 2004). Contrary to bequeathing, buying a car by accident is highly unlikely. Thus, we need to learn more on how individuals form their subjective probabilities (Hurd, 2009). Intertemporal study linking bequest behaviour and making a will with subjective probability to bequeath, opens new research possibilities. If bequests are planned, then their distribution can be derived from the subjective probabilities, assuming normality similarly to the study on stock market expectations by Hurd et al. (2011). But this is a step ahead of testing the hypothesis that "bequests are left accidentally."

CONCLUSIONS

The attempts to account for bequest behaviour reviewed in detail in this article remain unsuccessful. Even though there is a rich literature on bequest behaviour listing a number of reasons for bequeathing, the phenomenon of bequeathing needs further investigation. We still do not know whether bequests are accidental or planned. The hypothesis that "bequests are left accidentally" needs testing. We propose to use the act of making a will as an indicator of bequests being planned. One of the potential sources of information could be the aggregation of juridical records on the fraction of inheritance cases where the estate was disposed of according to the will made versus the one according to the default inheritance laws, so that these figures can be representative for the population of those who passed away leaving any bequest. Another approach to testing the hypothesis is to employ registry or survey data on will-making. Finally, an intertemporal study on will-making, bequeathing with or without a will, and the subjective probabilities to bequeath, might contribute to finding out whether bequests are planned or accidental.

Even though there is no confirmation that bequests are planned (left intentionally), many studies assume that they are. After rigorous testing of the hypothesis that bequests are left accidentally, there is a need for a model that would explain why bequests are left. If bequests are planned, the model should capture natural and cultural motives and predict the amount of the

optimal planned bequest. The range of potential motives for bequeathing is wide, as shown in the article. All of them would need further empirical research. Moreover, it is possible that a significant motive for bequeathing is still being omitted. This might explain why, despite numerous studies, the question why people bequeath remains unanswered.

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