Altruism, Exchange or Indirect Reciprocity: What do the Data on Family Transfers Show?

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1. INTRODUCTION

This paper is a slightly biased review of the economic literature on intergenerational transfers within the family, which has developed since the last thirty years, or so. Standard models in this field emphasize two main competing motives for *inter vivos* transfers (between living members of the family): *altruism* towards children, and (inter-temporal) self-interested *exchange* between parents and children; moreover, bequests (post-mortem transfers) may also reflect a precautionary motive against lifetime uncertainty in the absence of efficient annuity markets. There are several theoretical and/or empirical surveys of this literature, which distinguish various forms of altruism and exchange as well as their recent extensions (such as child's "preference shaping"), and compare the predictions derived with observed transfer behavior in the U.S. and elsewhere, especially in developed countries.¹

We begin by providing a quick reminder of these theoretical models, and give then a somewhat negative assessment of their empirical tests. These conclusions are quite akin to those obtained in other surveys and related works, which tend to emphasize the poor performances of altruistic and exchange-motivated models, regarding as well the determinants of *inter vivos* transfers as those of bequests. In this first part (sections 2-5), our main contribution is to better grasp the problems raised by the definition and classification of heterogeneous (time or financial) inter vivos transfers and, correlative, to show more precisely where or why the predictions of standard models of altruism or exchange fail to apply in modern developed countries - the focus of our study.

In the next, more original, part (sections 6-7), we propose to remedy this disappointing state of affairs while trying to make a link between these models of altruism or exchange and the approaches of *reciprocity* developed, in other contexts, in this handbook. Indeed, the empirical failure of standard models of transfers could well be due, in the first place, to their simplistic view of the intergenerational family: either no apparent family, for the selfish life-cycler who leaves "accidental" bequests owing to random life duration; or the harmonious Beckerian family, headed by a benevolent patriarch driven by altruism towards his progeny; or still, the pure self-interested family relations, where intergenerational exchanges aim at mimicking private exchanges or contracts that should exist on ideal markets, and act as a substitute or a complement to them. Drawn from anthropology, the concept of reciprocity and related notions (gift and counter-gift...) should lead to a more satisfactory view of family linkages, providing new motivations for transfers and introducing more realistic forms of contracts or norms between kin generations.

The last short part of the paper (sections 8-9) compares macroeconomic and policy implications, about growth, inequality and the welfare state, obtained by reciprocity models and two extended forms of altruism and exchange, each allowing for heterogeneous

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¹ See thus Masson and Pestieau (1997), Arrondel *et al.* (1997), or Lafferrère and Wolff (in this handbook).
behavioral regimes and encompassing a broader set of transfers. In conclusion, it emphasizes the main empirical contributions that can be derived from the existing literature concerning the heterogeneity and motivations of intergenerational transfers in developed countries.

But first of all, some preliminary remarks appear needed to explicit our use of the concept of reciprocity and, especially, to justify the introduction of “indirect” forms of reciprocity between generations: as we shall try to convince the reader, the latter may be viewed as appropriate dynamic syntheses of altruism and exchange, allowing, with minimal deviations, to introduce “intermediate” motivations for transfers which better fit the data. The organization of the paper will then become clearer.

1.1. From parental altruism or dual exchange to indirect reciprocity

Our approach to reciprocity will indeed look quite specific by comparison with other analyses in this handbook. First, instead of being applied to general human sociality, or to explain reciprocity between strangers by a norm of fairness leading to retaliation behaviour in experimental games, or to foster cooperation within small communities, it concerns here family and kinship, that is to say blood relationship and very asymmetric links between parents and children. Second, the concept must be adapted to the succession of generations, taking thus a particular, extended form, which has been introduced notably by the French anthropologist Mauss (1958 and 1968): namely, indirect (serial) reciprocity, involving three successive generations at a time and leading to infinite endless chains of descending or ascending transfers between parents and children.

Reciprocity differs from market exchange in that it proceeds from a set of "internal" obligations - i.e. to give, to receive, and to give back -, whether driven by norms or collective values, group or social pressure (Kolm, 2000). But otherwise, direct reciprocity still resembles standard quid pro quo exchange: e.g., parents exchange prior education of their kids, or the promise of future inheritance against child’s support in their old days. On the other hand, indirect reciprocity implies either that the beneficiary generation gives back to a third generation (e.g. provides education or bequest to one's children "in return" for education or bequest received from one's parents), or that the giving generation will be paid back by a third generation (e.g. will receive support given by her children "in return" to past support given to own parents). In each case, indirect reciprocity leads to the replication of the same type of transfer along the intergenerational chain: for instance, the way to pay back my

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2 See the contribution of Fehr in this volume.
3 In an evolutionary perspective, strong reciprocity corresponds, thus, to a pro-social norm that aims at the survival of small communities in case of crisis: the individual applies a tit-for-tat strategy in all cases - independently of the probability of extinction of the community -, that is even against his own interest, when rewards and punishments become costly to her (see Bowles, Fong and Gintis in this volume).
4 The first case is a form of (what we shall call) the propagation effect - or "helping behavior" in Kolm's (1984) terminology; the second case is a form of the rebound effect – or "Descartes effect" for Kolm, see section 6.
parents for the education I received is to give myself proper education to my own kids, and so on.

In the absence of satisfactory models of indirect reciprocities, the paper will have a dominant empirical orientation. Indeed, our initial motivation for extending exchange or reciprocity to three generations within this coherent and encompassing framework came first from French evidence on parent-to-child transfers: strong and highly significant retrospective effects, both qualitative and quantitative, have been systematically found for downward transfers and transmission practices on different data sets by different authors, and these effects appear robust to alternative econometric specifications (Arrondel et al., 1997). Hence, what is left in bequest (and declared gifts) to children appears commensurate to what has been received from parents, the life propensity to bequeath out of inheritance being much higher than the one out of human resources. Moreover, transmission patterns and behaviours tend to be reproduced from one generation to the next: everything being equal, inheritance received through a will increases the probability to make a will, donees are more likely to become donors, and so on (see below § 7.1 and 7.2).

These results refer to transmission practices and downward transfers influenced by corresponding behaviors of the previous generation. For that reason, they will be interpreted as a backward-looking (i.e. retrospective) and downward indirect reciprocity. Likewise, Barro-Becker dynastic altruism - where parents care about their child’s utility and expect their children to exhibit a comparable degree of altruism and to adopt a similar bequeathing behavior towards their own children, and so on – corresponds to a particular variant of forward-looking downward indirect reciprocity, where agents are endowed with an infinite horizon. Four types of these reciprocities will then be considered, according to the orientation of time (backward or forward), and the direction of the transfer considered: upward, e.g. child-to-parent assistance, or downward. Thus, examples of upward and forward-looking ones are so-called demonstration effects, where effective support of elder parents is assume to favour, by one way or another, later support by own children during one’s old days.\(^5\)

1.2. Outline of the paper

The organization of the paper is as follows. Section 2 is devoted to a brief overview of theoretical models of family transfers, relying on three main motives: life-cyclers’ precautionary savings against lifetime uncertainty, leading only to accidental bequests; altruism and exchange, in different forms, that should also account for the determinants of inter vivos transfers, whether from parents to children or, especially in the case of exchange motivations, from children to parents.

\(^5\) See for instance Cox and Stark (1996 and 1998). In this new field, the terminology may vary a lot from one author to another. Thus, Ribar and Wilhelm (2002), who follow the anglo-saxon literature on social exchange, call “downward tit-for-tat chains of reciprocity” our backward-looking indirect reciprocities…
A major source of misunderstanding and confusion with these models, especially in empirical tests, comes from the lack of a proper definition and classification of inter vivos transfers, whether upward or downward, financial or time ones. Section 3 claims that this identification problem is of central importance for parent-to-child, financial transfers. Their strong heterogeneity is not enough acknowledged, as if college fees to a 20-year old child and major (official, declared) gifts received some 25 or 30 years later as anticipated inheritance were perfect substitutes. We propose a typology of transfers according to their timing and their objective (whether they add to child's income, consumption or wealth), which leads to a division of the typical life-cycle in four periods – working life being divided in two. This typology has obvious bearing on the lively Kotlikoff-Modigliani debate concerning the share of received wealth in total existing accumulation, as well as on the related issue about the quantitative importance of inter vivos transfers with respect to bequests.

Section 4 sums up existing empirical tests of standard transfer models, with rather negative conclusions (at least in developed countries). In particular, parental (Beckerian) altruism cannot account for the observed absence – or limited importance – of compensatory effects of parent-to-child transfers, either between generations, or among siblings. Indeed, we emphasize the dominant feeling of disillusion in the profession about the performances of these models as well as the still limited knowledge economists claim to have on the quantitative importance and determinants of private transfers between generations…

Section 5 adds to previous empirical studies in several directions. Most models of transfers – including those based on intergenerational contracts or norms, transmission of values or preference formation – assume a unique, three or four-generations family composition: data show, however, that there is no such thing as a "representative" family with \( n \) overlapping generations, but a large diversity of compositions – a result which has also important implications for policy design and inequality of well-being between families.

Furthermore, while adopting an economically relevant, i.e. quite restrictive, definition of time transfers (which excludes such anecdotal services as occasional gardening), and using richer data sets, with detailed information on services but also on financial support given to older parents, we show precisely at which steps most forms of exchange fail empirically in modern occidental countries – and incidentally why exchange motivations might be more accurate in old Europe or in less developed countries. First, support of old parents by their children appears the only significant (time or financial) upward transfer in developed countries. Second, the latter transfers cannot be explained - on French or U.S. data - by any observable, past, present or expected counterpart, from parents to children: everything being equal, helpers have not received more – in education (in the French case at least) or in inter vivos transfers – than non helpers, and do not expect higher inheritances, but smaller ones.

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\( ^6 \) The fact that equal sharing seems the dominant pattern, even in countries where there is freedom to bequeath, appears especially difficult to reconcile with altruism, but also with exchange.
This negative result relative to the explanation of upward transfers has important consequences. In the following, we shall hence favour two non-standard forms of exchange and altruism: the self-enforcing family constitution model (Cigno, 1993); and the two-regimes model of free and constrained altruism (Becker and Tomes, 1986). Both predict that child's support goes preferably to less well-off parents, as empirically observed.

Section 6 proposes another solution while introducing a third generic type of transfer motivation, namely reciprocity, which encompasses mixed or intermediate motivations between pure, self-interested exchange and pure altruism. It also allows for richer relations within the family, especially through the notion of gift "ambivalence": a gift is both a positive act of sharing and a negative one of domination, exerted on the receiver. Indirect reciprocity is then introduced as a form of "general" reciprocity, a concept already analyzed at length by Kolm (1984), who has identified its two basic ingredients: the "rebound effect" (one gives to the givers) and the "propagation effect" (the helped help in turn). This analysis is finally applied to family transfers between (three) generations, leading to four types of serial reciprocities: backward- or forward-looking ones, for upward or downward transfers. Upward transfers are governed by the rebound effect, downward ones by the propagation effect; backward-looking reciprocities reflect the obligation to comply to the relevant effect, forward-looking ones the intentional desire to provoke it (see Table 4).

Section 7 considers preliminary tests of indirect reciprocities, performed on French or U.S. data. Parent-to-child transfers appear strongly influenced by the corresponding behaviours or transmission practices of the previous generation: estimated retrospective effects are highly significant, robust with respect to alternative specifications or declaration biases, and very selective: thus, wealth gifts bestowed on children depend specifically upon wealth gifts received, not so much upon other receipts, whether inheritance or financial help. Moreover, recent French and U.S. studies devoted to demonstration and related effects show that (time or financial) support given to old parents could be motivated by the expectation to receive comparable assistance from one's own children during old days; however, here especially, the possibility of alternative interpretations of the findings cannot be ruled out.

The last part of the paper is more tentative. Section 8 deals with the economic implications of alternative motivations of transfers, concerning government redistribution policy and its effects on growth, saving and education, as well as the interaction effects between public and private transfers. It focuses on three broad types of motives:

(i) self-enforcing family "constitutions" a la Cigno (1993), giving the agent the choice to "go-it-alone" (life-cycle saving) or to "comply" to a family norm of extended exchange between three generations, where the "middle" one has to give, in turn, both to old parents and young children;

Albeit somewhat ad hoc, reverse (child-to-parent) altruism might explain support of old parents. But it should lead to crowding out effects that French or U.S. evidence do not confirm (if anything, public and private transfers to the elderly appear rather complementary, see § 5.4).
(ii) two regimes of altruism with investment in child’s human capital, either free with operative transfers a la Barro that crowd-out public transfers, or constrained by the interdiction of negative bequests, with quite different implications for public policy;

(iii) indirect reciprocities with specific links between three successive generations, with policy implications that remained to be further explored.

Family constitution models typically predict substitution effects: e.g., an increase in public pensions makes “complying” and family transfers less profitable. But altruism may paradoxically give complementary roles to the family and the State, since more public transfers towards the elderly – pensions, health – should entail more private transfers given to children and grandchildren – education, gifts, bequests (Becker and Murphy, 1988). Besides the transfer motive, however, economic and policy implications will depend on other elements introduced in the model (capital market imperfections, heterogeneity of agents…), as well as additional “non-economic” factors, such as the assumed positive or negative externalities engendered by family transfers.

Section 9 sums up the main conclusions drawn in this survey and indicates some directions for future research. Especially welcome should be a more thorough comparison of the features and motives of family upward and downward transfers in modern developed countries and in LDCs and old Europe. Another important question is to know whether the main results obtained (for developed countries), such as the strong heterogeneity of financial parent-to-child transfers, the quantitative importance of inter vivos transfers, the high diversity of family intergenerational compositions, and the dominant part attributed to indirect reciprocities among transfer motives, could help for a revaluation of distributive issues, including the effect of transfers on income inequality within and between families, or the role of inheritance and gifts on the concentration and intergenerational immobility of wealth.