Journal of European Public Policy

ISSN: 1350-1763 (Print) 1466-4429 (Online) Journal homepage: http://www.tandfonline.com/loi/rjpp20

Pro-elderly welfare states within child-oriented societies

Róbert Iván Gál, Pieter Vanhuysse & Lili Vargha

To cite this article: Róbert Iván Gál, Pieter Vanhuysse & Lili Vargha (2018) Pro-elderly welfare states within child-oriented societies, Journal of European Public Policy, 25:6, 944-958, DOI: 10.1080/13501763.2017.1401112

To link to this article: https://doi.org/10.1080/13501763.2017.1401112

JOURNAL OF EUROPEAN PUBLIC POLICY, 2018
VOL. 25, NO. 6, 944–958
https://doi.org/10.1080/13501763.2017.1401112

Routledge
Taylor & Francis Group

Pro-elderly welfare states within child-oriented societies

Róbert Iván Gál[a,b], Pieter Vanhuysse[c] and Lili Vargha[a,d]

[a]Hungarian Demographic Research Institute, Budapest, Hungary; [b]Institute of Sociology and Social Policy, Corvinus University, Budapest, Hungary; [c]Department of Political Science and Public Management, University of Southern Denmark, Odense, Denmark; [d]Doctoral School of Demography and Sociology, University of Pécs, Pécs, Hungary

ABSTRACT

Families and policies both are main vehicles of intergenerational transfers. Working-age people are net contributors; children and older persons net beneficiaries. However, there is an asymmetry in socialization. Working-age people pay taxes and social security contributions to institutionalize care for older persons as a generation, but invest private resources to raise their own children, often with large *social* returns. This results in asymmetric statistical visibility. Elderly transfers are near-fully observed in National Accounts; those to children much less. Analysing ten European societies, we employ National Transfer Accounts to include public and private transfers, and National Time Transfer Accounts to value unpaid household labour. All three transfer channels combined, children receive more than twice as many per-capita resources as older persons. Europe is a continent of elderly-oriented welfare states and strongly child-oriented parents. Since children are ever-scarcer public goods in aging societies, why has investment in them not been socialized *more*?

KEYWORDS Children-as-public-goods; household economy; intergenerational transfers; National Transfer Accounts; parental investment; social under-investment

Introduction: shining a wider light on the 'social' in investment

The contributions to this collection interpret 'social investment' nearly exclusively in terms of (productivist) *public policies* (see also Esping-Andersen 2009; Morel *et al*. 2012). Conceptually, however, social investment refers to the allocation, with the expectation of positive returns also to society, of scarce resources to the skills and human capital of (future) workers. This is a productive form of downward intergenerational transfer.[1] Incidentally, the literature on intergenerational transfers exhibits the same strong policy emphasis.[2] It puts forward three main propositions: (1) currently older generations receive more overall public transfers than in past decades (Kotlikoff and Burns 2012);

CONTACT Pieter Vanhuysse vanhuysse@sam.sdu.dk
Supplemental data for this contribution can be accessed at 10.1080/13501763.2017.1401112.

(2) older persons receive more on average than children (Vanhuysse 2013); and (3) the elderly/children public transfer ratio has been increasing (Preston 1984). Such tendencies are sometimes referred to as 'grey power', 'gerontocracy' (Sinn and Uebelmesser 2002), or 'pro-elderly bias' (Tepe and Vanhuysse 2010; Vanhuysse 2014). Some even speak of 'generational' 'storms' or 'clashes' (Kotlikoff and Burns 2012). This contribution argues that these portrayals of intergenerational transfers are misleading, since they are limited to the statistically visible world of public transfers and largely ignore intra-familial transfers (*cash*) and the household economy (*time*). Yet households and public policies both serve as vehicles of intergenerational transfers (Albertini *et al*. 2007).

For instance, a key social investment function of the cash and time parents transfer to their non-adult children is to boost children's cognitive skills and non-cognitive traits. In addition to the private returns to children, these parental transfers have significant, and often large, *social* returns later on.[3] Undoubtedly, children provide manifold private benefits to their parents and families, and part of the cost of raising them resembles pure consumption. But children are also very significantly *public* goods, predominantly paid for privately (Folbre 1994; Lee and Miller 1990). While raising children may be better described as an intrinsic commitment rather than a deliberate investment, it is a very costly and socially beneficial commitment all the same (Folbre 2008). Parents bear the lion's share of these costs – in cash and time, both directly and in terms of opportunities foregone. These private costs are in part socially imposed by socio-legal obligations for continuity of adequate care (Alstott 2004). Yet, to the extent that children subsequently become productive tax and social security paying adults, they create positive externalities that will benefit all of society. They will finance, for instance, future public pension and health and long-term care benefits – all of which will also benefit non-parents. In other words, not just are the current costs of children in part socially created but only very partially socialized. What is more, children's future social benefits are fully socialized. Society forcibly redirects some of these benefits to non-parents, thereby reducing the benefits available to parents (Olsaretti 2013).

We provide a fuller picture of the degree to which societies, not just welfare states, transfer resources between generations. We show that on their own, public transfer data offer an incomplete and biased picture of intergenerational transfers – a proverbial case of looking for a lost car key only where the streetlight shines at night. When it comes to younger age groups, the bulk of the investments in society are not by policies but by households. We thus follow the social investment and human capital literatures in viewing many resource transfers to younger citizens not as consumption but in large part as positive-return investments in productive skills. But we show that once one shines a wider light by using more complete data on

all relevant forms of intergenerational transfers, a radically different picture emerges on how, and how much, societies invest. The reason is a key asymmetry in *socialization*[4] – in the forms of financing the current costs of childhood and old age. Older persons as a generation tend to rely on society, but the costs of children are predominantly borne by their own families, mostly their parents (Demeny 1987). Socialization leaves traces that public statistics can capture. Non-socialized transactions do not, leaving them much less visible (Folbre 2008).

Empirically, we make two contributions. First, we construct age profiles through National Transfer Accounts (NTAs).[5] This allows us to look not just at the allocation of primary income and its secondary distribution based on standard National Accounts (NAs), but also at the tertiary redistribution of after-tax revenues within households (e.g., parents paying for the consumption of dependent children) and between households (e.g., retired parents supporting non-cohabiting children). However, NTAs still do not cover the provision and consumption of *unpaid household labour*. Such labour, especially in the form of care for children and the fostering of their cognitive and non-cognitive human capital, is also a key form of societal investment (Esping-Andersen 2009; Folbre 1994, 2008). In a second step, we therefore provide new calculations for this key variable missing from studies of intergenerational transfers. Based on time use survey data, we estimate the value of transfers of household goods and services by age. We call these National *Time* Transfer Accounts (NTTAs; see also Donehower 2011).

We analyse all three transfer channels – public and private resources, and time – for 10 European countries spanning five welfare regime models and representing about 70 per cent of the EU population around 2005: France, Austria and Germany; Italy and Spain; Hungary and Slovenia; Finland and Sweden; and the United Kingdom (UK). Our main findings can be summarized as follows. (1) In line with the pro-elderly bias literature, European welfare states, as welfare *states*, tend to devote significantly more resources per-capita to the currently old than to the currently young. (2) However, once we take also into account private, mostly intra-familial transfers and unpaid household labour (time), the picture radically changes. All European societies, as *societies*, transfer far more per-capita resources overall to children than to older persons.

Constructing resource transfer age profiles: time is of the essence

NTAs introduce age into age-insensitive National Accounts. Whereas in NAs revenues flow among institutions (e.g., households, government and firms), NTAs recognize that the main entries of NAs' Income Account have characteristic age profiles. Labour income is minimal or zero in childhood and old age,

and is largely concentrated in active age. Consumption is more uniformly distributed over the lifecycle. Public transfers are financed mostly by people in their active age and consumed mostly by people at young or old ages. Resources of households are also reallocated from the active aged to children and older persons. The lifecycle deficit (LCD) is defined as the net *balance* (difference) between consumption and labour income at any given lifecycle *stage* (Lee and Mason 2011). In rich modern societies, LCD is positive (a true deficit) in childhood and old age, when consumption is not covered by one's own labour income. LCD is negative (a surplus) in active age, when labour income exceeds consumption.

In short, NTAs redefine income flows among institutions as flows among generations. The NTA accounting standard describes age groups by: (1) how much labour income they make; (2) how much they consume; (3) how much they give to other age groups, either through public channels such as taxes, or directly, mostly among relatives; (4) how much they receive from other age groups, either as public transfers, services and public goods, or as private transfers; and (5) how much they (dis)save. This requires the extension of the usual information base of NA with income and consumption surveys as well as administrative or survey information on tax and transfer incidence. NTA analyses start by converting NA entries to the NTA aggregates of labour income (including taxes levied on labour), consumption (net of consumption related taxes) and the resulting lifecycle deficit (Lee and Mason 2011). The age profiles of these items are derived from administrative data or surveys. The profiles are adjusted to the aggregates to secure consistency between NAs and NTAs. A similar process produces the age profiles of items such as asset-based revenues, taxes and transfers and private transfers given or received, filling the gap between consumption and labour income.[6] Accordingly, panel A of Figure 1 shows the normalized per-capita age profile of LCD for our 10 countries. The LCD of older persons is on the whole higher than that of children. The highest LCD during childhood is around ages 14–16, when teenagers receive the equivalent of 59 per cent

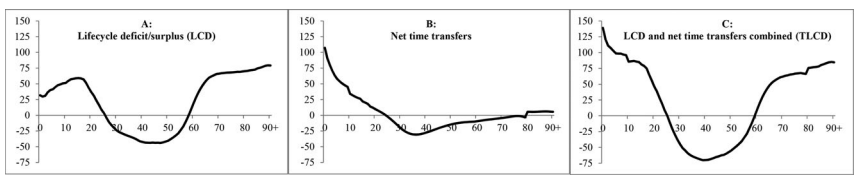

Figure 1. Per-capita lifecycle deficit, net time transfers, and total lifecycle deficit by age in Europe. Source: authors' calculation based on NTA data for LCD (www.ntaccounts.org) and on Vargha *et al*. (2016) for time transfers.

Notes: Values are population weighted averages of 10 European countries around 2005 normalized on the per-capita market labour income of persons aged 30–49 of the respective country.

of the per-capita labour income of persons aged 30–49 in their country. The same 59 per cent share is received already at age 66. Thereafter, the resource transfers received by older persons keep rising slowly.

Importantly, however, data on *unpaid household labour* are missing from both NAs and NTAs (thus from panel A). Yet such labour is a major resource transferred across generations. Sociologists have increasingly emphasized the importance of, and the changing patterns in, the time devoted to family duties and household labour (Albertini *et al*. 2007; Esping-Andersen 2015; Gershuny 2000; Lareau 2003). The equivalent of LCD in the realm of unpaid household labour is net *time* transfers. Their meaning is the same: the value of household labour consumed less the value of household labour produced. The goods and services produced and consumed here, however, are not part of the national economy, but of the household economy. We therefore created the age profile of net time transfers, in three steps (see Online Appendix 1). First, we used Harmonised European Time Use Survey (HETUS) and other time use surveys to identify the time spent on household production activities by age.[7] Second, home production was assigned to its actual consumers. Third, we imputed the value of time spent in unpaid household labour using the market wages of the person whose job is done as our reference point.

Panel B of Figure 1 presents the per-capita age profile of net time transfers, containing the estimated market value of all household work. Clearly, the shape of intergenerational transfers is radically different in the household economy (panel B) compared to the national economy (panel A). Net time transfers are highest among newborns: quite naturally, babies need the most time-intensive care. During their first year of life, European children receive on average more than the yearly per-capita prime-age labour income in their country in time transfers alone.

These time transfers subsequently decrease, but they remain substantial throughout childhood and adolescence. Five-year-olds still receive nearly 60 per cent of yearly per-capita labour income in time transfers. Time transfers still amount to more than one-third of labour income at age 10 and more than one-fifth at age 15. They only turn negative as late as age 25. The largest net time contributors are in their thirties to mid-forties – the 'rush hour of life', when most adults reach peaks of labour market stress and are also burdened with extensive household and family care duties. These duties are most time-intensive precisely during the most investment-like stage of child rearing: the first life years.

Net time transfers in panel B remain negative much longer than in panel A, becoming positive only among the oldest-old, after age 80. Active adulthood thus lasts longer in terms of unpaid household labour (from age 25 to age 79) than in terms of the national economy (from 26 to 58). This reflects the housework, grandparenting and other civil society activities undertaken by 'young-

old' Europeans in their sixties and seventies. Yet the value of such activities is comparatively small after age 70. This is because the biggest share of unpaid household labour by far is not direct person-to-person care or inter-household transfers, but rather 'intra-household public goods' produced by household members for joint consumption (e.g., cooking, cleaning gardening). But older Europeans overwhelmingly no longer live inside multigenerational households *with* their children and grandchildren. Conservatively estimated, over three-quarters of older people in our 10-country sample do not live with their children (Eurostat Census Hub data).

The *total* lifecycle deficit: Europe as a child-oriented continent

Panel C of Figure 1 combines net public transfers with LCD and net time transfers to produce the fullest description of intergenerational transfers. We call this combined picture the total lifecycle deficit (TLCD), i.e., the net balance of all resources received at any lifecycle stage. All three transfer types combined, children between birth and age nine receive between 139 and 96 per cent of per-capita labour income in their country. This is more than even the very oldest receive – those aged 90 and above. Young Europeans still receive more than three-quarters of per-capita prime-age labour income right until they reach age 17, close to voting age. Older Europeans, however, receive the same share only after they reach age 80.

Our method allows us to define lifecycle stages according to *net total resource dependency*, as opposed to chronologically, as is conventional (e.g., childhood until age 18, old age from age 65). Defined this way, TLCD-childhood in Europe lasts on average until age *25*, while TLCD-old age already starts at age *60*. Even in countries with a small higher education sector, this demarcation age for the end of childhood is still surprisingly high, as it takes young adults years to reach a level of labour productivity sufficient to compensate for increasing consumption.

Online Appendix 2 contains the per-capita values of the full transfer package in terms of prime-age labour income by transfer type flowing to children and older persons. In line with pro-elderly welfare studies (Lynch 2006; Tepe and Vanhuysse 2010; Vanhuysse 2013), older persons receive more than twice as much in net public transfers than children: 37 per cent of average prime-earnings income, compared to 15 per cent. But once private transfers are also taken into account, the picture changes. The combined public–private spheres transfer package of children (39 per cent) is slightly larger than that of older persons (34 per cent). And most importantly, if in a third step we add transfers of unpaid household labour, the original proportions are *inverted*. The children/elderly transfer ratio jumps from less than half in public transfers alone (0.39) to more than double all transfers combined (2.35).

The value of the full transfer package for a child is equivalent of 73 per cent of annual per-capita prime-age labour income. Out of this, only 15 percentage points flow through publicly recorded channels. In contrast, the public part of older persons' package is around 37 per cent of prime-age labour income, which is reduced to 31 per cent through the private transfers in cash and time older persons provide. In short, despite recent shifts from passive and/or curative forms of welfare toward social investments, welfare states are still very much geared toward paying benefits and services in old age. The main investment during childhood, by far, is by households. Although public policies transfer more resources to the old and very old, once households are taken into account Europe emerges as a *child-oriented* continent. This holds true in every one of our 10 countries, even though there is significant variance in how countries complement or crowd out working-age citizens in caring for dependents.

Revisiting the three channels for financing intergenerational transfers

The TLCD curve reappears in Figure 2, where we show how the gap between consumption and production is financed through three resource channels: net public transfers (mediated by government, social security or other

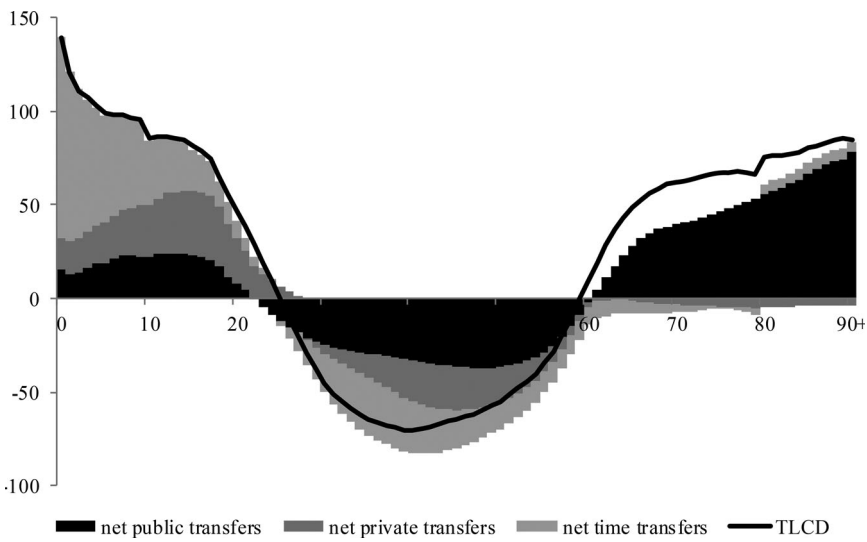

Figure 2. Per-capita public, private and time transfers and their contribution to filling the gaps of total lifecycle deficit by age in Europe. Source: Authors' calculation based on NTA data (www.ntaccounts.org) and Vargha *et al*. (2016).

Notes: Values as in Figure 1.

public actors); private transfers (within or between households, overwhelmingly among relatives); and time transfers. The enveloping curve of public transfers (including taxes and subsidies on production, taxes on income and wealth, and social contributions and benefits) shows that public policies create pro-elderly biased welfare *states*. Defined in terms of public resource dependency, childhood lasts until age 21 and old age starts at age 60. The highest net public transfer in childhood is around age 12–13, at less than one-quarter of prime-age earnings. Older Europeans receive more than this: more than half of prime-age earnings by age 77, and more than three-quarters by age 90.

However, public transfers do not cover TLCD, particularly among children. Consumption exceeds production by an equivalent of nearly 140 per cent of annual prime-age labour income for newborns, out of which public transfers cover only 15 percentage points. Other forms of inter-age transfers must fill the gap. The dark grey area shows the age profile of private transfers – flows of items that are part of the national income (e.g., services and commodities) bought by parents but consumed by their children. They are exchanged almost exclusively among relatives and overwhelmingly *within* households.[8]

The age profile of private transfers is very different. First, reflecting the typical household structure prevalent across Europe, private transfers are mostly a two-generation affair. Those up to age 27 are net receivers, and from around age 60 net private transfers become marginal. Second, while negligible in old age, private transfers are more important than public transfers at every childhood stage. Yet, large parts of the area below the TLCD curve are still uncovered. This gap is mostly filled with time transfers. Children require more time resources when small and more cash as they grow older. Second, children receive nearly one-and-a-half times as much in time transfers as in private transfers. Third, older Europeans up to age 79 are modest net providers of time.

In sum, taking the complete transfer package into account, children receive on average substantially more resources than older persons in Europe. This is rarely if ever noted in the literatures on *state* social investment, owing to the asymmetric socialization and asymmetric visibility of upward and downward transfers. Market and government transfers flow between people connected by contractual relations enforceable by law. The value of these transfers is largely set by market forces or regulation, and it is registered and accounted for. But regarding invisible transfers, the co-operation of the actors, most frequently family members, is regulated by customs and social norms (Coleman 1990; Folbre 2008). Violation of these norms is less observable, less systematically registered and, except for extreme cases, not enforceable by law. In the case of time transfers, they cannot even be measured directly because these transfers are not evaluated in the market. As a result, these transfers are largely missing from public statistics

In some sense, there is a universal functional division of labour going on between governments and families in contemporary societies. Working-age citizens pay taxes and social security contributions to care indirectly for currently older *generations* through state programmes. But they predominantly spend private time and private resources to care directly for their *own* children themselves. The resources involved in raising children remain mostly a family affair. But since working-age adults no longer tend to live with their parents, care for older generations is largely institutionalized through government programmes or markets. Transfers to older persons are easier to socialize through cash or public services provision without the intercession of a guardian. Online Appendix 3 gives further details by showing the institutional composition of transfers. Children in Europe receive nearly *half* of their net transfers in the form of unpaid household labour. Older persons are net providers of both time transfers and private transfers, but large recipients of public transfers.

Conclusions: why not *more* socialization of child investment?

Contrary to widely held perceptions, children receive more than twice as many per-capita resources as older persons in Europe. Our findings do not refute the key propositions of either the elderly bias or the social investment literatures. Welfare states, *as* welfare states, have undergone a paradigm shift towards policies aiming to boost productivity through investment in human capital and skills, while at the same time transferring more resources to older persons. But our findings do suggest that these literatures are in danger of looking for a lost car key only where the streetlight shines. Public transfer data alone offer a highly incomplete picture of what societies accomplish in terms of intergenerational transfers and investment in the human capital of (future) workers. Any apparent pro-elderly welfare state bias is the consequence of the asymmetric socialization of intergenerational transfers and their resulting asymmetric visibility in National Accounts. Once one includes also private cash and time transfers, conclusions differ radically. European societies, as *societies,* transfer more than twice as many resources on average to each child as to each older person.

Prescriptively, these findings indicate that there is much scope left for states to assist or complement families in boosting early human capital through the various education, training and work–family reconciliation policies discussed in this collection. The key role of parents points to another rationale for shining a wider light on the 'social' in investment. Only by going beyond public policies and studying how parents respond in their private investment decisions can we optimize social outcomes (Francesconi and Heckman 2016). Skill formation is characterized by dynamic complementarities: 'Skill begets skill: early learning makes later learning easier and more

effective' (Carneiro and Heckman 2003: 90). While early childhood is therefore crucial, continuity is needed throughout childhood and early youth into adolescence. Effect sizes of policy interventions may go down during primary and middle school ages, but the causal mechanisms are similar. For instance, test scores, behaviours, attitudes and curriculum enrolment of middle and high school students are key predictors of later schooling, criminal and labour market outcomes (Farkas 2011). Social investment may also have a differential impact across childhood (Vanhuysse 2015). Cognitive abilities appear to be malleable predominantly during early childhood. But key non-cognitive skills seem responsive to well-designed interventions much longer, until at least late adolescence (Dweck 2012; Francesconi and Heckman 2016; Heckman 2013).

Economic models of human capital tend to focus on the emergence of intergenerational *social* policies for the young (e.g., Goldin and Katz 2008). In Becker and Murphy's (1988) account, in the absence of reliable and enforceable long-term contracts, welfare states have historically evolved in order to provide a public (cross-sectional) solution to the problem of transferring private resources from 'producers' to economically less-powerful younger 'dependents' over the life cycle. Lee (2012: 26) argues that co-operative child rearing has paved the way for the emergence of the welfare state as an institutional improvement over family care for young dependents. More generally, economic theory posits that public goods will often be undersupplied by private actors because the costs are borne by the producer, but the benefits are non-excludable. This is seen as a strong rationale for state intervention (e.g., Barr 2012). These economic models provide functionalist accounts of state policies for children. But they do not explain why, empirically, it is families, not states, who still take upon themselves the overwhelming share of resource transfers to younger generations.

Though parental (especially maternal) childrearing might appear 'natural,' rates of infanticide, abortion and orphanage have historically fluctuated according to socio-contextual determinants and have at times been substantial (Hrdy 1999). At the same time, the traditional model of private child rearing *has* reasserted itself even in the rare settings designed explicitly to strongly modify it. For instance, in a number of egalitarian collective childrearing communities founded in the 1960s–1970s, commune-member mothers ended up expressing even stronger preferences than mothers in ordinary households for caring for their own biological children (Cohen and Eiduson 1976). The originally radical Israeli kibbutzim model of collective rearing by multiple non-kin caregivers was gradually diluted over time to allow ever greater parental involvement including home sleeping, until the whole system was abandoned in the 1980s (Aviezer *et al*. 1994; Beit-Hallahmi and Rabin 1977). Hands-on child rearing thus seems unlikely to be extensively socialized.

But the question remains: why *so little* socialization of early human capital *investment*? After all, children are public goods, given the positive externalities they will later bring to all of society. More precisely still: they are *forcibly and deliberately socialized* goods whose future benefits (their taxes and other productive contributions they will make) are, technically, rival and excludable (Olsarettti 2013). This is why older persons' social rights (e.g., pensions), parents' taxation levels, and official pension ages could all, in principle, be parental investment-related and be conceived in part as private returns to earlier human capital investment (Demeny 1987; Olsaretti 2013). But empirically, social programmes explicitly and significantly internalizing the positive externalities of children by taking into account earlier child rearing efforts just cannot be observed in contemporary welfare states.

The puzzle of primary theoretical interest is why early human capital investment (not childrearing) has not been socialized much more than we observe in reality. Notwithstanding the Human Capital Twentieth Century (Goldin and Katz 2008) and the post-2000 'social investment' paradigm (Busemeyer *et al.* 2018; Hemerijck 2018), the state's role in such investment still appears very modest in most rich democracies, with the exception of Nordic Europe. Children may have become 'emotionally priceless but economically worthless' (Zelizer 1985: 3) to *parents,* but not to high-longevity, low-fertility *societies*. The productivity argument for state investment in very young children is particularly compelling, as high-quality early childhood education often displays remarkable social rates of return.[9] Yet state spending on such programmes still averaged only 0.6 per cent of gross domestic product (GDP) in the Western and 0.4 per cent in the Eastern EU member states in the first decade of the twenty-first century (Vanhuysse 2015: 277). The inherent present-bias of actors and institutions in democracies with short electoral horizons is undoubtedly one key factor (Gonzalez-Ricoy and Gosseries 2016); competing demands on tight budgets from aging voters another (Tepe and Vanhuysse 2009, 2010; Vanhuysse 2013).

There is ample evidence of 'overworked' adults (Frase and Gornick 2013) – mainly women – who spend the 'rush hour' of life in a 'time bind' at work and in their 'second shift' at home (Hochschild 1997). Our evidence only strengthens these claims. But gender, parenthood and class are the three elephants in the room here. There are additional key differences in resource contributions, most importantly between women and men, but also between parents and non-parents (Esping-Andersen 2009; Folbre 1994, 2008). Children in Europe may receive nearly half of their net transfers as unpaid household labour, but most of that is performed by *women*. Europe's small social investment *states* may be embedded within societies with larger parental investment in children, but most parental time spent on children is by women. Moreover, children face diverging destinies depending on the accident of birth (Esping-Andersen 2015; McLanahan 2004). In addition to Matthew effects in

social service receipt, there is a strong, and probably increasing, class gradient to the private resources spent caring for children, which is exacerbated by higher divorce and single motherhood rates among low-socioeconomic status groups and by increasing educational homogamy in partner choice (Bonke and Esping-Andersen 2011; Lareau 2003).

Since when have transfers to children been higher per capita than to older persons? Are higher pro-elderly public transfers a form of compensation for lost private and time transfers owing to lower co-habitation levels with adult children? We do not have retrospective information describing temporal processes. Although we cannot address these questions, there is evidence that the average time spent on non-chore unpaid household labour has increased since the 1950s (Gershuny 2000). Together with the strong reduction of child mortality and the shortening of working weeks, this may have further boosted the idea that children are 'priceless' (Zelizer 1985). Time transfers have probably become more valuable in monetary terms, yet there is little evidence of productivity-driven Becker-type gender specialization. Rather, contemporary high-earning parents like to care jointly (Bonke and Esping-Andersen 2011; Esping-Andersen 2015). However, there do seem to be clear Becker-Lewis-type quantity/quality trade-offs. Lower fertility tends to increase time transfers to, and family investment in, each child (Vargha and Donehower 2016). Future research must elucidate the overall impact and the class and gender dimensions of such developments. As they stand, our results question any one-sided storyline of a creeping resource grab by older citizens. The growing public resource share toward older persons may well have gone in parallel with increasing societal resources for the young. Notwithstanding elderly bias in public spending, the twentieth century may also have been the Century of the Child, as Ellen Key (1909) predicted at its start.

Notes

1. Resource transfers are studied here among *current age groups*, not diachronically between cohorts.
2. For critical reviews, see Vanhuysse and Goerres (2012), Tepe and Vanhuysse (2009).
3. Heckman and Masterov (2007); Carneiro and Heckman (2003); Francesconi and Heckman (2016), Heckman (2013); also Esping-Andersen (2009), Vanhuysse (2015). We view transfers to *older* generations as predominantly financing consumption, not investment, as such transfers do not systematically produce significant positive returns over long temporal horizons.
4. By socialization, we mean the arrangement of intergenerational transfers by large-scale, anonymized institutions, rather than close kin or local communities. The former include governments (e.g., public child care, social security) but also non-profit organizations serving households and for-profit corporations (e.g., private schools, pension plans) (Lee and Mason 2011: 65).

5. NTA was established by Lee (1994); a manual is United Nations (2013); an introduction is Lee and Mason (2011).
6. Since tax-transfer systems and data sources vary across countries, technical details of producing the age profiles differ. Istenič *et al*. (2016) provide a standardized methodology.
7. HETUS is an effort to harmonize European time use surveys: https://www.h2.scb.se/tus/tus/default.htm
8. They are considered the balancing item between private consumption and disposable income communicated among family members. Estimations are based on a household sharing model and a simple set of assumptions accommodating cross-country comparison (United Nations 2013). Calculations are made on large consumption surveys; in Europe, household budget surveys.
9. See note 3.

Acknowledgements

We are grateful for comments from the editors, Kati Kuitto, Birgit Pfau-Effinger, Martin Schröder and seminar participants at the Max Planck Centre Odense, the Madrid FUNCAS workshop, Hamburg, Lausanne, Konstanz, and Pazmany Budapest universities, the Hebrew University Jerusalem, the Slovak Academy, and the Canadian Parliament. Gal is grateful for hospitality at Hitotsubashi University's Institute of Economic Research. We thank the following teams for providing NTA data: Bernhard Hammer (Austria), Reijo Vanne and Risto Vaittinen (Finland), Hyppolite D'Albis *et al*. (France), Fanny Kluge (Germany), Marina Zannella (Italy), Katharina Lisenkova (UK), Jože Sambt (Slovenia), Thomas Lindh *et al*. (Sweden) and Ció Patxot *et al*. (Spain). Hungarian data were produced by Gál and Vargha.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This contribution was written as part of the AGENTA project funded by the Seventh Framework Programme of the European Union (grant agreement no 613247) and the 'Taking Age Discrimination Seriously' project, based at the Institute of State and Law (Prague) and funded by the Grantová Agentura České Republiky (grant number 17-266295).

Notes on contributors

Róbert I. Gál is senior researcher at the Hungarian Demographic Research Institute and affiliated professor at Corvinus University of Budapest.

Pieter Vanhuysse is professor of comparative welfare state research at the Department of Political Science and Public Management of the University of Southern Denmark.

Lili Vargha is a junior researcher at the Hungarian Demographic Research Institute and a PhD candidate in the Doctoral School of Demography and Sociology at University of Pecs.

References

Albertini, M., Kohli, M. and Vogel, C. (2007) 'Intergenerational transfers of time and money in European families: common patterns — different regimes?', *Journal of European Social Policy* 17(17): 319–34.

Alstott, A. (2004) *No Exit*, Oxford: Oxford University Press.

Aviezer, O., van Ijzendoorn, M., Sagi, A. and Schuengel, C. (1994) '"Children of the dream" revisited: 70 years of collective early child care in Israeli kibbutzim', *Psychological Bulletin* 116(1): 99–116.

Barr, N. (2012) *Economics of the Welfare State*, 5th edition, Oxford: Oxford University Press.

Becker, G.S. and Murphy, K.M. (1988) 'The family and the state', *The Journal of Law and Economics* 31(1): 1–18.

Beit-Hallahmi, B. and Rabin, A.I. (1977) 'The kibbutz as a social experiment and as a child-rearing laboratory', *American Psychologist* 32(7): 532–41.

Bonke, J. and Esping-Andersen, G. (2011) 'Family investments in children – productivities, preferences, and parental child care', *European Sociological Review* 27(19): 43–55.

Busemeyer, M., de la Porte, C., Garritzmann, J. and Pavolini, E. (2018) 'The future of social investment: politics, policies, and outcomes', *Journal of European Public Policy* 25(6): 801–809.

Carneiro, P. and Heckman, J. (2003) 'Human capital policy', in J. Heckman and A. Krueger (eds) *Inequality in America*, Cambridge: MIT Press, pp. 77–239.

Cohen, J. and Eiduson, B. (1976) 'Changing patterns of childrearing in alternative lifestyles', in A. Davids (ed.), *Child Personality and Psychopathology Vol. 3*, New York: Wiley, pp. 25–68.

Coleman, J.S. (1990) *Foundations of Social Theory*, Cambridge: Harvard University Press.

Demeny, P. (1987) 'Re-linking fertility behavior and economic security in old age: a pronatalist reform', *Population and Development Review* 13: 128–32.

Donehower, G. (2011) 'Incorporating gender and time use into NTA', UC Berkeley. Manuscript.

Dweck, C. (2012) *Mindset*, New York: Robinson.

Esping-Andersen, G. (2009) *The Incomplete Revolution*, Cambridge: Polity Press.

Esping-Andersen, G. (2015) 'The return of the family', in P. Beramendi, S. Häusermann, H. Kitschelt and H. Kriesi (eds), *The Politics of Advanced Capitalism*, Cambridge: Cambridge University Press, pp. 157–78.

Farkas, G. (2011) 'Middle and high school skills, behaviors, attitudes, and curriculum enrolment, and their consequences', in Duncan, G. and Murnane, R. (eds), *Whither Opportunity?* New York: Russell Sage, pp. 71–90.

Folbre, N. (1994) 'Children as public goods', *American Economic Review* 84(2): 86–90.

Folbre, N. (2008) *Valuing Children*, Cambridge: Harvard University Press.

Francesconi, M. and Heckman, J. (2016) 'Child development and parental investment: Introduction', *The Economic Journal* 126: F1–F27.

Frase, P. and Gornick, J. (2013) 'The time divide in cross-national perspective: the work week, education and institutions that matter', *Social Forces* 91(3): 697–724.

Gershuny, J. (2000) *Changing Times*, Oxford: Oxford University Press.

Goldin, C. and Katz, L. (2008) *The Race Between Education and Technology*, Cambridge: Belknap Press.

Gonzalez-Ricoy, I. and Gosseries, A. (eds) (2016) *Institutions for Future Generations*, Oxford: Oxford University Press.

Heckman, J. (2013) *Giving Kids a Fair Chance*, Cambridge: MIT Press.

Heckman, J. and Masterov, J. (2007) 'The productivity argument for investing in young children', *Review of Agricultural Economics* 29(3): 446–93.

Hemerijck, A. (2018) 'Social investment as a policy paradigm', *Journal of European Public Policy* 25(6): 810–827.
Hochschild, A.R. (1997) *The Time Bind*, New York: Henry Holt.
Hrdy, S.B. (1999) *Mother Nature*, New York: Pantheon.
Istenič, T., Šeme, A., Hammer, B., Lotrič-Dolinar, A. and Sambt, J. (2016) 'European NTA manual', Manuscript.
Key, E.K.S. (1909) *The Century of the Child*, New York: Putnam.
Kotlikoff, L.J. and Burns, S. (2012) *The Clash of Generations*, Cambridge: MIT Press.
Lareau, A. (2003) *Unequal Childhoods*, Berkeley: University of California Press.
Lee, R.D. (1994) 'Population age structure, intergenerational transfer, and wealth: a new approach, with applications to the United States', *The Journal of Human Resources* 29 (4): 1027–63.
Lee, R.D. (2012) 'Intergenerational transfers, the biological life cycle, and human society', *Population and Development Review* 38: 23–35.
Lee, R.D. and Mason, A. (eds) (2011) *Population Aging and the Generational Economy*, Cheltenham: Edward Elgar.
Lee, R.D. and Miller, T. (1990) 'Population policy and externalities to childbearing', *The Annals of the American Academy of Political and Social Science* 510: 17–32.
Lynch, J. (2006) *Age in the Welfare State*, Cambridge: Cambridge University Press.
McLanahan, S. (2004) 'Diverging destinies: how children are faring under the second demographic transition,' *Demography* 41(4): 607–27.
Morel, N., Palier, B. and Palme, J. (eds) (2012) *Towards a Social Investment Welfare State?* Bristol: Policy Press.
Olsaretti, S. (2013) 'Children as public goods?', *Philosophy and Public Affairs* 41(3): 226–58.
Preston, S.H. (1984) 'Children and the elderly: divergent paths for America's dependents', *Demography* 21(4): 435–57.
Sinn, H-W., and Uebelmesser, S. (2002) 'Pensions and the path to gerontocracy in Germany', *European Journal of Political Economy* 19: 153–8.
Tepe, M. and Vanhuysse, P. (2009) 'Are aging OECD welfare states on the path to gerontocracy?' *Journal of Public Policy* 29(1): 1–28.
Tepe, M. and Vanhuysse, P. (2010) 'Elderly bias, new social risks and social spending: change and timing in eight programmes across four worlds of welfare, 1980–2003', *Journal of European Social Policy* 20(3): 217–34.
United Nations (2013) *National Transfer Accounts Manual*, New York: UN.
Vanhuysse, P. (2013) *Intergenerational Justice in Aging Societies*, Gütersloh: Bertelsmann Stiftung.
Vanhuysse, P. (2014) 'Intergenerational justice and public policy in Europe,' *European Social Observatory (OSE) Paper Series, Opinion Paper No. 16*, 17 pp.
Vanhuysse, P. (2015) 'Skills, stakes and clout: early human capital foundations for European welfare futures', in B. Manin (ed.) *The Future of Welfare in a Global Europe*, Alderschot: Ashgate, pp. 267–96.
Vanhuysse, P. and Goerres, A. (eds) (2012) *Ageing Populations in Post-Industrial Democracies*, Abingdon: Routledge.
Vargha, L. and Donehower, G. (2016) 'The quantity/quality tradeoff: a cross-country comparison of market and nonmarket investments per child in relation to fertility', Manuscript.
Vargha, L., Šeme, A., Gál, R.I., Hammer, B. and Sambt, J. (2016) *European NTA Accounts*, available at http://witt.null2.net/shiny/agenta/
Zelizer, V. (1985) *Pricing the Priceless Child*, New York: Basic Books.