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Poverty in African households: the limits of survey representations

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Abstract

National and international statistics on poverty focus almost entirely on measurements (income, expenditure or assets) at household level despite anthropological and qualitative perspectives over three decades which suggest that (a) poverty should also be analysed in relation to perceived and anticipated needs and potential support incorporating both material and human dimensions and (b) the household itself as defined in surveys is a highly problematic concept in much of sub-Saharan Africa

In this paper we analyse the ways in which household level poverty statistics might (mis)represent the strategies that people use in order to survive in the contemporary context of modernisation in SSA. We compare household strategies in rural and urban settings in Tanzania and Burkina Faso through detailed case studies (n=50 per country) to explore local understandings and strategies of household membership(s), contributions, demands, movements, loyalties and intergenerational support.

Across settings and countries we observe two contrasting responses to poverty generated by changing socio-economic environments. Some households manage and mitigate poverty through extreme flexibility, maximising potential resources and managing safety nets through movement, economic diversification, sharing, or depending on kin and others in crisis. For these households wealth in people is important, combined with the spreading of risk and resources that people provide. The opposite response is isolation and self-containment - households unable or unwilling to request or offer help. We classify these households respectively as “open” and “closed” and we look in detail at the characteristics of each, and analyse how their closed or open nature can be understood as either strategic or just the result of unfortunate circumstances.

Household survey data which measure poverty in terms of assets, income or expenditure and material conditions may seriously misrepresent both the resources base and those who can depend on it. Most importantly though, such economic approaches fail to capture the critical importance of “wealth in people” which can provide temporary and long term solutions to poverty crises but in doing so is at odds with the notion of a ‘household’ with fixed membership depending on a measurable set of resources. We conclude that household survey data probably represent closed households quite well, but distort those for whom resources in people mitigate poverty. In all our sites open households outnumbered the closed ones, suggesting that poverty data are misrepresenting the situations of many urban and rural poor.

1. Introduction

There has long been an interest in understanding and tackling poverty in Africa and with the targets set by the Millennium Development Goals and the post-MDG agenda, both measuring poverty and understanding its determinants and dynamics have become even more important. There are many different ways of measuring (e.g. relative, absolute (Kakwani & Silber, 2008)) and conceptualising (e.g. multidimensional, fuzzy (Alkire & Roche, 2012; Qizilbash & Clark, 2005)) poverty and many different levels at which analyses can be undertaken: individual, household, district, national or regional (Gräß & Grimm, 2011; Hulme, 2004; Owens, Sandefur, & Teal, 2011). Measuring the determinants and outcomes of poverty has focused on the household level because the vast majority of people live in some sort of domestic group. In countries where state support of the poor and vulnerable is minimal, the domestic group is the primary source of support, socialisation and resources for wellbeing for both those of working age and capacity and those who are unable to support themselves.

Many researchers see issues of poverty, and particularly those of persistent poverty as fundamentally a household level problem (Barrett, Carter, & Little, 2006). Livelihood approaches construct the household as “a site in which particularly intense social and economic interdependencies occur between a group of individuals” (Ellis, 2000:18). In this paper we focus on household level measures and understanding of poverty and wellbeing whilst recognising that the really poor often live outside households (the homeless, street children) but few data sources are able to capture such populations and measure their wellbeing because they are not attached to households, making them statistically invisible.

Anthropological critiques of the relevance of any analysis of African economic well-being using the notion of “household” are well-established. Guyer and Peters demonstrated clearly that the economist’s concept of household mapped very poorly onto African social and economic organisation (Guyer, 1981; Guyer & Peters, 1987). They emphasised three key conceptual principles: (a) that households are not discretely bounded groups and that different household members can draw on different personal networks and kinship relations for access to resources (b) households are not fixed forms but constantly evolving and (c) that households are not homogenous but are differentiated along lines of gender and generation. These principles continue to apply today and their perceptive analysis is an essential backdrop to this paper. The problem is that, despite these longstanding anthropological insights into the nature of African households, data collection and analyses frequently ignore these conceptual principles. Guyer and Peters highlight the ‘uses and abuses of the concept of household’ (1987, p202) and this paper examines some contemporary uses and abuses.

2. Household level poverty

Analyses, measures and understanding of the dynamics and determinants of household level poverty reveal issues and contradictions about the ways in which the concept of household is used. Here, we highlight six interdependent issues.

2.1 What measure of household poverty to use?

Different researchers use different measures of household poverty: Howe and colleagues have just published an excellent review of methods, approaches and their problems and advantages which we will not reiterate here, other than to emphasise the key role played by disciplinary background (economics, anthropology, geography etc.) and available data sets in shaping analytic approaches to poverty (Howe et al., 2012).

2.2 What household survey data sources to use?

Studies of poverty, including studies which use measures of poverty as explanatory variables, exploit a wide variety of data sources; nationally representative household surveys (Household Budget Surveys, LSMS or DHS); purpose designed representative household surveys for specific areas; and, studies with either total or partial coverage of small communities. All derive their data from households using a statistical definition of household developed by the local statistics office with membership based on criteria largely designed to avoid double counting (Randall, Coast, & Leone, 2011). Some surveys (notably Household Budget Surveys) allow absent members of the household to be counted as members (and, if appropriate, their assets to be included) whereas in others, such as the DHS, absentees are not usually listed, and if the head of household is absent someone else is nominated in his / her place.

Purpose designed surveys and studies with either total or partial coverage of small communities may develop their own definitions of household – but analyses and publications are often unclear about what definition has been used and how certain people are treated: absent household heads; young migrant men; polygamous unions; students and children at boarding schools.

2.3 Time perspective on poverty

Diverse approaches to analysing the dynamics of poverty over time reflect constraints imposed by data availability. A comparison of household-level and macro poverty measures using different cross sectional data sets for Ghana and Tanzania (Owens et al., 2011) demonstrated contrasting conclusions dependent on which poverty measure was used. Using DHS data to analyse trends in poverty in 7 African countries via trends in assets indices Booyesen et al. demonstrate considerable diversity in poverty trends across study countries but conclude that assets indices may be problematic for such analysis of change because firstly, there is a slow rate of change in the underlying assets variables and secondly, assets indices cannot discriminate between the very poor because too many have so few assets (Booyesen, van der Berg, Burger, Maltitz, & Rand, 2008).

Prospective, high quality data would contribute to better understanding of the predisposing factors to either falling into poverty or getting out of it but such studies are rare in sub-Saharan Africa, reflecting the burdensome administrative and financial costs involved. However, the production of longitudinal and panel data (INDEPTH, 2013; NBS, 2009), and analyses (Barrientos & Mase, 2012; Bigsten, Kebede, Shimeles, & Taddesse, 2003; Emwanu, Hoogeveen, & Okiira Okwi, 2006) is increasing.

Small scale studies, often incorporating non quantitative ways of assessing poverty, have studied the mobility of households into and out of poverty using repeat cross-sectional approaches (Mushongah & Scoones, 2012; Peters, 2006; Whitehead, 2006). This is complex because households are not stable entities over time (either in the short or long term), and the developmental cycle of a household means that there are, inevitably, certain periods when it is likely to be poorer and those where, because of more labour and fewer dependents it is more likely to be less poor: movements in and out of poverty are difficult to interpret if this cycle is not taken into account. Mushongah and Scoones (who study the same Zimbabwean communities 20 years apart) produce a clear account of the role of the household lifecycle and their understanding of “household”. Their study involves tracing the descendants of their original households some of whom are, what they call, secondary households in the study area, and are themselves included in the study. Other studies which focus on household mobility between different states of poverty are less clear about criteria selected for defining a group of people as a household over time, and how the developmental cycle is accounted for (Krishna, 2004).

2.4 Quantitative, qualitative or mixed methods?

The economist approach to poverty requires quantifiable measures; income, expenditure or an assets based index (Howe et al., 2012). These ignore dimensions of poverty related to [lack of] social support, social networks, aspirations and social participation which are difficult to capture through quantitative analysis of standard household survey data (White 2002; Thomas 2008). Development practitioners working in small scale rural communities have used relative wealth ranking techniques (Grandin, 1988) for categorising people into poor and less poor and understanding local perceptions of the dimensions of poverty. Such approaches are strengthened through the detailed discussions and preparatory group work with different community groups exploring the meaning and indicators of poverty –which can reveal different ideas about what constitutes critical dimensions of poverty by age and gender. The subsequent ranking of households into groups allows for a minimum of quantification. Some studies have compared wealth rankings with those obtained through more quantitative approaches based on household survey data. Scoones, working in Zimbabwe, criticises wealth indicators derived from survey data because the indicators are chosen by the analyst and survey instrument design limits potential analyses (Scoones, 1995). Such limitations were the main incentive behind his mixed methods approach comparing wealth ranking to survey measurements. Not only does Scoones’ study eschew the imposition of a specific notion of wealth and poverty on respondents, the “households” are also not pre-defined by researchers but depend on local understanding which “thus relates to a spatially defined unit associated with a particular group of people” (p. 69, fn.3). Scoones points out that there may be household members who are absent – especially men aged 30-45 working away from home and that household size may be in a state of flux. Such articulation of the dynamics of household membership and the importance of absent members is rare.

Ellis and Freeman’s comparison of wealth ranking and survey based estimates of poverty in Uganda, Tanzania, Kenya and Malawi finds that local village perceptions of poverty are largely grounded in social exclusion – groups or individuals who have limited social

networks and support systems and are often on the fringes of society such as widows, the divorced and the elderly (Ellis & Freeman, 2004). For them such poverty contrasts with the economist approach focusing on minimum acceptable levels of consumption. Using a similar approach in rural South Africa which concentrated more on actual wealth rankings and less on the discursive and qualitative dimensions of the method (Hargreaves et al., 2007) wealth ranking exercises also demonstrated that those with limited social support and networks were considered poor. Mushongah and Scoones' twenty year longitudinal study compares wealth ranking with household survey data, and also examines the dimensions of wealth highlighted in the ranking exercise over the 20 years. They show that although overall dimensions of wealth were similar in the two periods there was a far greater emphasis in the more recent period on health and education (Mushongah & Scoones, 2012). In a mixed methods investigation of determinants of wealth in Northern Nigeria, the wealth ranking approach was validated because the ranks were similar to those produced by an econometric approach using farm size, farm income and non-farm income (Ojiako, Manyong, & Ikpi, 2007). However this study paid little attention to the qualitative dimensions of the wealth ranking and the understanding about the nature of poverty and wealth that the method can generate. Interestingly, this was one of the few studies where a quantitative analysis based on household level data generated findings that the wealthier households were larger than the poorer households.

These mixed methods studies highlight the idea that throughout Africa "wealth in people" remains important and that a key dimension of poverty is often an absence of access to extra-household networks. Not only are the more economic measures of poverty not capturing a key dimension, but Guyer and Peter's first conceptual principle (that households are not discretely bounded groups) remains valid after thirty years of rapid social change and transformation.

2.5 Household size

Most quantitative analyses of survey data of household wealth and poverty include household size as an explanatory variable and it is generally expected that larger households are poorer. White and Masset challenge such analyses. They point out that (a) consumption levels probably vary by age especially when food is a major component of consumption and (b) researchers fail to account for economies of scale experienced by larger households in terms of public goods (White & Masset, 2003). Their analysis of two Vietnamese surveys shows that by weighting household members by their adult equivalents in terms of food consumption and making assumptions about economies of scale, larger households are no longer poorer and that such adjustments change the characteristics of the poor considerably.

Household size over time is not stable, and whilst household size is typically measured cross-sectionally by a household survey, economic (consumption and production) data tend to be measured over a recall period. Halliday examines household size stability over a year and shows that there is much more change in household size in El Salvador (in both directions with households losing and gaining members) than there is in the US. Only about half of El Salvadorean households remained stable over a year (Halliday, 2010). In many part of the

world, including Africa, seasonal labour migration, child mobility and boarding schools are all factors likely to contribute to similar or even greater levels of household membership mobility.

2.6 Reliability of household level data

A practical advantage of household data collection is the ability to collect data on a large number of people without interviewing everyone. The assumptions underlying this approach are twofold. Firstly, that the household is an entity or a social unit whose members have similar levels of access to its resources and assets, an assumption which violates one of Guyer and Peter's (1987) key conceptual principles. Secondly, that one person is capable of responding accurately for the whole unit. This second assumption has been tested in Malawi in a four village study that collected household income data from just the man, husband's reports of a wife's income, and wife self-reports of her income (Fisher, Reimer, & Carr, 2010). Analyses showed full agreement in just 6% of households, with the husband overestimating spousal earnings in 28% of cases and underestimating in 66%. The distribution of the discrepancies was not random and they conclude that interviewing just the household head could lead to very different conclusions about the causes of poverty than if all adult household members were interviewed.

Research from Uganda compared data on livelihood portfolios from household surveys ("*disaggregated data*") with data collected using PRA methods (Jagger, Luckert, Banana, & Bahati, 2012) and concluded that the different methods tell very different stories and that relatively few findings are robust across data sets.

2.7 Understanding African household poverty

There are many ways to measure, interpret and understand African poverty with attendant considerable problems in pinpointing the nature of poverty and appropriate policy interventions. Contradictory findings suggest people are getting poorer, people are moving out of poverty: big households are richer, big households are poorer: survey based data produce similar results to data using more emic categories and approaches such as wealth ranking or they generate very different results.

Studies that focus on household level poverty rarely consider the nature of the "households" they are studying. This is particularly the case with secondary analyses of data sets, especially nationally representative surveys. The more anthropological and qualitative the research, the more likely it is that the researchers explain what they understand by household and the particular characteristics of such households. Large scale studies using nationally representative data tend to find (or assume) that increasing household size is associated with increasing poverty. Smaller scale studies and studies that collect their own data with their own definitions of household tend to find the opposite – that larger households are the more economically secure (Ojiako et al., 2007; Scoones, 1995; Sharp & Devereux, 2004; Whitehead, 2006). In many of these studies the definition of household membership is much more inclusive compared with definitions used in nationally representative household surveys – which often develop out of census definitions themselves preoccupied with avoiding double

counting (Randall et al. 2011). For example Scoones (1995) includes absent migrant men in his households and the resources they bring in: such men would be excluded from all DHS surveys. Whitehead's longitudinal study in rural northern Ghana demonstrates that household size is an important dimension of food security and wealth: "*here was a virtuous circle between wealth and household labour supply and a vicious circle between poverty and small household size and poverty traps existed so that those with too little labour and too little wealth engaged in strategies which entrenched them in poverty*" (abstract, p278). Her descriptions of her study households states that

...living units accommodated married couples living together within the same compound, so that some compounds attained a large size. In this study, because farming was organised by compound heads who also owned and managed livestock, the term household refers to the full nested set of units that comprise a compound. (p285)

Whitehead's anthropological approach takes the household as the emically defined unit and demonstrates the wealth and security that people bring. This is in strong contrast to most survey definitions which would have split these large compounds into small constituent nuclear families or husband-wife units and thus would have lost any sight of collective responsibilities and solidarities. Whitehead's study, which covers 1975 until 1989, actually shows an increase in household size over this period, which was most marked for the richest households.

These disciplinary and methodological differences in the interpretation of household size and its relationship with poverty demonstrate a contradiction in the literature yet coherence emerges between studies of rural Africa in the 1980s and contemporary demographic studies of attitudes towards fertility and reproduction in many parts of contemporary Africa. The latter are frequently confronted with the understanding that people are wealth and wealth is people – although this is beginning to change in more schooled, and more urban contexts. More anthropological studies of household level poverty in rural Africa continue this theme of "wealth in people": the more secure households are the bigger ones (Ojiako et al., 2007; Scoones, 1995; Toulmin, 1992; Whitehead, 2006).

Extra-household social relations and networks are also critical in affecting vulnerability to experiencing poverty and in ability to cope with acute crises – and these are issues that are missed by econometric measures of household income, expenditure or assets or by any research which focuses on the household as a bounded and discrete unit. This becomes clear from the studies of poverty which use qualitative approaches, in particular wealth ranking and their discussions of the nature of wealth and poverty. What emerges repeatedly is the idea of "wealth in people" and the importance of social networks and social relations outside the household for not being categorised amongst the poor (Barrett et al., 2006; Krishna, 2004; Little, Stone, Mogues, Castro, & Negatu, 2006; Whitehead, 2006). The types of people who are regularly highlighted as being poor are widows, the divorced, orphans and elderly people whose families live elsewhere (Ellis & Freeman, 2004). These are all categories of people

who, through death or migration, have had many normally expected social connections excised.

Much of African life remains inherently unpredictable (JohnsonHanks et al., 2005): the AIDS epidemic has caused previously wealthy lineages to fall into destitution (Mushongah & Scoones, 2012; Seeley, 2008); structural adjustment, reductions in civil service employment and high unemployment for secondary school and university graduates mean that education is no longer the pathway to social success and security it once was – despite which most parents continue to invest in educating their offspring. More anthropological studies seem to suggest the benefits of social strategies focusing on “wealth in people”, but these seem to be contradicted by survey findings that larger households are poorer. This paper is an attempt to disentangle this and establish whether one reason for this contradiction is that household survey methodologies are ill adapted to capturing the diverse forms and strategies through which “wealth in people” is manifested.

3.0 Aims

This paper examines this contradiction through focusing on issues around household size and household flexibility and considers some of the potential relationships between household size, flexible household membership, and poverty. **Our key research question is what sorts of poverty-related issues may be either missed or inaccurately measured because of definitions of household used in household surveys?** We examine issues of household size and how these differ between local understanding of the basic domestic and economic unit and that generated by surveys. We also look at flexible household membership using the lens of closed and open households. Are people who move between households doing so as a response to poverty, as a way of avoiding poverty or seeking wealth and security? Is a “wealth in people” mentality a relic from a rapidly disappearing set of past traditions and cultural values that only remain in poor rural areas or is there evidence of “wealth in people” in contemporary urban contexts?

3.1 Data and methods

This paper emerges from a multi-country, mixed methods research project which collected data in England, France, Senegal, Burkina Faso, Tanzania and Uganda: only data from Tanzania and Burkina Faso are used here. We draw on two data sources. A review of the definitions used in African surveys and censuses since the mid-twentieth century examined changing constructions of the survey household over time and countries. Although we do not present detailed findings from this review, our understanding of the ways in which survey household definitions have developed over time informs our analyses of the second source of data used here. In each country we undertook around 50 in-depth interviews with purposively selected households focusing on emic perceptions of their household membership and why certain absent people might be included or excluded, the support links within and outside the household (particularly focusing on links of older people), evidence for membership of several households or transitory status and ambiguous household membership. In Burkina Faso we had two sites within the capital city – an unplanned poor

settlement and a longer established district, a small town and a rural area¹, with around 12 households interviewed in each site and at least half the households were chosen to include at least one person over 60. There was no specific focus on older people in Tanzania where households were selected from two rural areas and a planned and unplanned district in Dar Es Salaam. In order to examine the parameters that would be imposed by standardised surveys we post-hoc applied the DHS definition² (identical in all countries) to our self-defined case study households.

We do not quantify the impact of our findings: our case study areas in each country were selected (a) because prior knowledge suggested they might include situations which were poorly represented by household surveys (b) to capture some linguistic and social organisation diversity. However they cannot be seen as being representative – they provide indications of the limitations for understanding poverty and responses to poverty through household survey data, and point to directions for further research.

4.0 Results

We develop the concept of “closed” and “open” households as an analytic category. We assume that in all societies the majority of people feel obliged to provide support and nurture for their own children and what one might call the nuclear family (with the possible exception of unmarried fathers). In much of Africa there remains a very strong obligation to contribute also to the family of origin – elderly parents and possibly adult siblings - despite evidence that faced with increasing demands, monetisation, costs of schooling and demands for material goods, the pressures to invest in the younger generation nuclear family are increasing (Aboderin, 2004; Roth, 2010). Thus a household whose members invest resources and provide help to those in their nuclear families of descent and origin and receive or ask for

¹ Original plans to cover two rural areas and different ethnic groups in each country were abandoned for lack of time.

² As described in:

http://www.measuredhs.com/pubs/pdf/DHSM1/DHS6_Interviewer_Manual_29May2012.doc

The first step in completing the household schedule is to request a list of all persons who usually live in the household and any visitors. To get a correct listing, you will have to know what we mean by a member of the household and what we mean by a visitor:

Member of the household. A household may be one person or a group of persons who usually live and eat together. This is not the same as a family. A family includes only people who are related, but a household includes any people who live together, whether or not they are related. For example, three unrelated men who live and cook meals together would not be considered one family, but they would be considered to be members of the same household.

Visitor. A visitor is someone who is not a usual member of the household but who stayed in the household the night before the day you are conducting the interview. If an individual stayed in the household the previous night, he or she should be listed on the Household Schedule.

Sometimes, it is not easy to know whom to include in the household and whom to leave out. Here are some examples: • A woman lists her husband as head of the household, but he lives somewhere else. If he does not usually live in the household you are interviewing, and he did not sleep there the previous night, he should not be included in the listing. • Sometimes, people eat in one household and sleep in another. Consider the person to be a member of the household where he or she sleeps. • A person living alone is a household. • A servant is a member of the household if he or she usually lives in the household.

help only from these same people, we define as “closed”: such households will generally have fairly stable membership and will not experience a constant changing flux of people with different rights, expectations and obligations coming and going. Those who offer, give, receive or ask for help or support from a wider range of kin we classify as “open”. These households will often be those for whom it is very difficult to establish membership in a survey because of frequent movements and reconfigurations of the household as different individuals exploit different social networks and obligations to try and make their own way and generate some future security in stressful economic contexts.

Using case study households, we illustrate the concepts of openness and closedness, the reasons behind, and ways in which, closedness/openness are rationalised and explained, and then consider the ways in which these interact with household size and resources in surveys and practice.

4.1 Open households

There were many cases of households with very flexible membership, where respondents spoke of multiple support links (both providing and receiving support). For these cases, actually deciding who should be counted as a household member and where household boundaries lay was problematic.

Tanzanian rural households were generally very open, but this is a partly an artefact of the villagisation process which, in our study sites, separated the residential areas from the key production areas (whether fields, water bodies or pastures) – thus reinforcing mobility and movement. In both capital cities plot owning households were often forced into openness because of this potential accommodation resource, whereas those who rented rooms in the same areas were more likely to be closed because of space constraints. However most of the latter were also attached to another household in a rural area so it is hard to define the urban household as a self-contained economic unit.

4.1.1 Flexible urban households.

A key asset of urban households, particularly those who owned their plot (often through inheritance) was the fact they could provide accommodation for incomers. In both Dar Es Salaam and Ouagadougou there were large heterogeneous households in compounds where there was a flow of individuals in and out, often circulating from rural areas, coming to work in the city for some time and then returning. They often brought food produced in the rural areas which was an important supplement for those in town.

Case study 1: Ouagadougou planned district

Around 20 people (aged 11-60) lived in 7 rooms around the compound which had been inherited by Aicha and Fadi, the two widows of the former owner. They lived with adolescent and young adult sons and daughters, some grandchildren (whose parents lived in a village), a sister, a nephew, and two of the dead husband’s nephews. No-one had full employment – many did petty commerce or worked as servants when they could. There were two cooking pots (belonging to Aicha and Fadi) but they hadn’t cooked and eaten together for two weeks

because they lacked resources. Those who had money each day would go and buy street food and might share with those who didn't. The compound provided free accommodation for people newly arrived from the village – residents would borrow (and need to repay) from other residents if they needed money and there was some solidarity and sharing of resources. There were no clearly identifiable 'households' within the compound and yet the 20 people did not form a clear unit. Discussions with survey enumerators suggested that in a survey this compound would probably be treated as a collection of single person households – yet there was far more solidarity between the individuals than implied by this survey solution. There was a clear sense that the sheer numbers of co-residents, the fact of kinship, and the possibility that someone had some money or food one day provided an element of security. Residents changed frequently as new people arrived from the village and those present returned to the village or found accommodation elsewhere closer to work or with other kin although Aicha, Fadi and their sons were always present.

Case study 2: Dar Es Salaam planned district.

An impoverished widow, Grace, lived in squalor with her 4 adolescent children on a valuable plot of land. Two of her husband's nephews had lived with her for many years – she fed them when she had food and money, they contributed to the household when they had money. Three other nephews also lived, rent-free, in a separate house on the plot. They rarely ate with Grace and her family and occasionally gave money, but their presence contributed to her strength in fighting a battle with her sister-in-law over ownership of the plot. These nephews gave her legitimacy and signified support for her greatest asset - yet they were certainly not members of her household in terms of rights and obligations in the way that her children or the long resident nephews were.

In both cases plot ownership meant that economically insecure people were able to offer free accommodation to others. The group benefitted from the increased probability that someone would have resources for food or other needs at key times. All were very poor and frequently went without food although in both cases the plot was an asset which allowed the household to be open to flows of members and the economic benefits which this brought.

4.1.2 Schooling and open urban households

Schooling is seen to be a key pathway of developing human capital and moving out of poverty by international and national policy makers and by African families alike. The ways in which people manage their childrens' access to education has complex interactions with household level measurements of poverty.

In all urban contexts, schooling is a constant source of mobility and depends on access to "open" households. Schooling requires multiple strategies – to access good schools, schools with places, schools seen as safe, and the right sorts of educational establishment. Children move between households to access education: some on a weekly basis, others more long term. Sometimes the family of origin pays for support, others depend on (or exploit) the support of richer relatives to support their children. The resources and the young people flow in all directions; these movements are always either developing and consolidating networks

or exploiting relationships in order to improve future prospects through education. The students' economic relationship with the household where they stay may differ from those of the actual children of that household who live there more permanently. Students usually come accompanied by some sorts of resources and their absence from their household of origin does not necessarily signify that they are no longer a drain on resources, although in some cases the education-related movement of children can be an economic benefit to their household of origin. In small town Burkina a number of education related strategies were occurring: some households received distant kin to attend secondary school in the town – some of whom were paid for and supported, others were largely supported by their host families. Other primary school children were sent to live with kin in villages where there was less competition for school places. Many older children had been sent to Ouagadougou to live with poor but well placed relatives and were receiving (often ill-afforded) resources from their households of origin: others had been strategically placed with better off relatives who were supporting their rural cousins.

Case study 3: Schooling in a small Burkinabe town:

A couple with three obviously malnourished children live in a borrowed house (whose roof had partially collapsed). The woman has two other boys by a previous marriage who spend each week with their maternal grandparents who feed them and pay their school expenses and from where they attend school. They re-join their mother at weekends. Flexibility clearly contributes to some poverty alleviation in their mother's household.

This strategy of schooling children elsewhere relieved current poverty but could be a clear strategy for the future:

Case study 4: Education mobility in Dar Es Salaam

A nuclear family with two daughters live in one rented room without electricity. The clever older daughter, Mabel, is sent to spend the weekdays at her aunt's, a teacher, who lives in a house with electricity where Mabel can do her homework. This strategic placement was seen as a way of countering some of the effects of poverty. This family was not participating in the 'people are wealth' reciprocal networks: they were closed to resources and people going in and out with the exception of this one, highly strategic link. They saw Mabel as part of their household, but she spent most of her time at her aunt's.

In these cases, and many others, household membership and size is extremely difficult to determine and changes rapidly. It would be hard to identify which household the children belong to and where they would be declared in a survey. Their parents bear some costs and relatives bear others. The movements of the children both alleviate poverty but also develop networks of obligation.

This leads us to reflect on what the household size captured by a survey actually means. Those people who might be recorded as being household members certainly have some rights and obligations in that domestic unit – but, as identified by Guyer – many have rights and obligations (often rather different ones) in a number of other households too. In closed

households the resources and the people and the obligations may match well and surveys are likely to represent well both levels of poverty and wealth.

4.2 Closed households

African traditional responses to uncertainty have developed around openness and flexibility of domestic unit organisation (Guyer 1981). The examples above indicate that similar strategies continue to be used to resolve short term problems and develop long term securities. But is household flexibility a ubiquitous response to poverty or potential poverty? Mixed methods research suggests that an inability to access these flexible open networks is an important dimension of poverty, yet more economic analyses suggest that smaller nuclear family households are better off.

Here we examine the 'closed' households we encountered in our case studies to establish whether there is evidence that they are closed because they are poor, poor because they are closed, or that, like the open households, closed households are very heterogeneous.

4.2.1 Closed because 'poor in people'

A number of households, mainly in the informal districts in the capital cities, epitomised the idea that lack of networks engenders closedness and is a major dimension of poverty.

Case study 5:

Mariame in Dar Es Salaam had worked as a night guard for 15 years and lived in a one room rented hovel with her 4 daughters and a granddaughter. They all lived off her guard's wages and one girl who had done well at school couldn't continue her education because they couldn't afford it. When asked why they didn't get relatives to help out she replied that they had none who were in a better position.

Case study 6

Aichatou is a widow who lives with her daughter Balkiss in a tiny house in an informal area in Ouagadougou. They came here when her husband's brothers sold her husband's plot when he died. Balkiss (20) completed two years of lycee but couldn't continue because of lack of resources. Mamadou (aged 22) eats, washes and does his laundry in his mother Aichatou's house but sleeps elsewhere nearby with a friend – probably because it is considered improper for a man of his age to be sharing a room with his mother and sister. Mamadou gets occasional work mending motorbikes and Aichatou sells firewood. They have few material goods, no-one they can ask for help in an emergency and no-one they offer any help to. Aichatou cried during the interview when explaining her situation. Her dead husband's brothers will not help.

Many closed and impoverished case study households are female headed, although not all are devoid of potential male labour. In each case there may be some kin who, in theory could provide support, but either those kin are equally destitute or the links cannot be mobilised. Once a household has fallen into acute poverty with inadequate resources for food they are

then unable to participate in the networks of exchange and openness that would provide a safety net. Each of these households has had potential safety nets excised and they are small, isolated and closed units.

4.2.2 Closed and poor apparently through choice

Case study 7.

Maurice is a rather unsuccessful garage owner/mechanic who lives with his wife and 4 children (aged 8-22) in a small house on a large bare plot which they own. Another house on the plot is let out and provides some income but the plot has no water or electricity. Maurice struggles to send his younger three children to school, and although he has some rich relatives he is too ashamed to ask for help. It is only through the assistance of a European sponsor that his younger two children can continue at school.

Whereas other households would exploit their large plot by receiving relatives this family is very self-contained. They neither receive nor participate in mobile networks of kin

Case study 8:

Sié farms in a village in SW Burkina with his two wives, elderly mother and 6 children (0-15). He had lived in Ivory Coast for some years before coming back to his village and clearing some fields. In a good year they can cultivate enough to feed themselves all year – in a bad year they have to ration the food and live frugally. The children live at home and they don't receive other kin. If in dire need he can borrow money from others in the village.

Sié has not had kin excised through bad luck; it may be that by living elsewhere before returning to his village Sié failed to cultivate necessary exchange networks, but in general the interview suggested that he was satisfied with being a closed household dependent on their own labour and resources.

4.2.3 Strategically closed households

In both countries, our study included a few households which were quite well off. Although they were generous in terms of general social good works and helping others, they did not do this through receiving large numbers of people into their household nor through household members moving around. They were not necessarily nuclear households – one had brought up his nephew like his son; the other had his unmarried daughter and her illegitimate child living with them. However there was a strong sense that there was quite a strict control over movements in and out of the household and that this absence of additional household members contributed to their financial security. These households were not forced to be closed – and in fact they were only closed with respect to movement of people: in all cases they were contributors of resources to a number of poorer relatives, and, in two cases, were notable figures for general social works around their district.

We can hypothesise that strategically closed households are attempting to develop a virtuous spiral of poverty-prevention. By voluntarily controlling movements in and out of the household, these households were avoiding the potential negative consequences of unwanted additional household members and their needs.

Having established our analytic categories of open and closed households, present in both countries and in all contexts, we next consider the implications of household survey data for household size calculations, and the implications for associations between household size and poverty.

4.3 Household size and resources in surveys and practice.

Household size is important as both an explanatory variable but also because, through income, expenditure, or assets indices, there is the assumption that household members share access to similar resources and have similar poverty or wealth.

Particularly in rural areas, the self-defined households we studied were substantially bigger than those which would have been recorded in the DHS. This was very marked amongst the rural Maasai population in Tanzania where, for example, a 25 person polygamous household (a man, 4 wives and many children) would become 4 DHS households of which 3 would be female headed. Ironically, amongst these smaller DHS households, it is likely that the bigger they are the poorer they would seem, because by disaggregating down to a woman and her children, household size is largely determined by numbers of children – and the largest households would have many dependent children and little apparent labour and few assets. Furthermore self-defined units always included a number of absent individuals: often young men away on labour migration – most of whom would be excluded from DHS surveys on the grounds of absence, yet who provided important remittances into the large households – and much of this income was given to the recognised household head.

The Maasai population might be seen an extreme case where survey defined households misrepresent household size, assets and security – but there were many other cases in both Tanzania and Burkina Faso where the minimal approach to the definition for a survey household misrepresented the group who were mutually supportive and pooled both resources and strains.

In southwest Burkina Faso, polygamously married wives often have separate cooking pots and thus, according to DHS definitions should be treated as separate households with at least one being female headed. Here, however, all wives work on the same fields and the harvest is stored in the same granary from which each wife gets her allocation of grain; when the grain runs out it runs out for all. Resources or assets (rarely more than a radio or a bicycle) usually belong to the man and thus the wife and children associated with him would appear to be in the more asset rich household. There are further budgetary complications because women have their own income from brewing beer. A husband knows about this income, but does not know how much a woman earns, nor does he have access to this money (he can ask to borrow money from his wife but he must repay) which she uses for buying clothes, things

for the children, condiments, or gives to her family. To an extent these women centred units are economically independent – but to a greater extent they are not – because the man owns the household fields which provide the grain staple food, and everyone works in the fields; the man pays children’s school fees. Furthermore there is considerable collaboration between co-wives: if one is brewing the other will cook for the entire household together; many cooperate and work together for a brewing session. In terms of mutual support and solidarity, the larger emically defined household which contains several cooking pots and much cooperation and sharing of both resources and poverty is the key economic unit which generates wealth or suffers together in poverty.

A further issue complicating representation of household size is that of dependents outside the nuclear family (whether polygamous or monogamous). A considerable number of domestic units (those which we classify as open) included nieces, nephews, grandchildren as well as older dependent aunts or uncles. Accepting responsibility for these relatives adds more dependents and more mouths to feed to a household; if the household is split in surveys according to women’s cooking pots it is not always clear where such dependents should or would be allocated. In both Burkina Faso and Tanzania the dependents from outside the nuclear family usually have some access to the larger household resources and not just those from the woman with whom they happened to be eating at the time of the survey. Furthermore when these nieces/ nephews / grandchildren grow up the investment in them may be repaid by greater security and a wider network of obligations for the wider household membership thus demonstrating a concrete example of wealth in people, likely to be missed or misrepresented in cross-sectional household surveys.

Large extended families living in the same compound are often separated into their smaller nuclei in household survey data collection – again often dependent on this idea of a cooking pot. Yet in Burkina and Tanzania, in both urban and rural areas there was strong evidence that patterns of cooking and eating were often much more either a matter of tradition – wives have always cooked separately - or practical convenience with little to do with access to resources.

Case study 9: Cooking arrangements and household boundaries

One large (21 person) compound in a small town in SW Burkina contained a married older couple and a number of their married and unmarried children, with both legitimate and illegitimate grandchildren. The old lady, the couple’s unmarried daughters with their illegitimate daughters ate from one pot, a married son, his wife and six children from another pot and second married son, his wife, 4 children and an unmarried older brother from a third pot. The old man as household head, was given food from all three pots every night – as a symbolic gesture that they were one unit. However all got their grain from one granary and all worked together on the household fields. Each son had occasional income from casual labour which was used to provide for his wife and children. All the women occasionally brewed beer and each of the two daughters in law sent a considerable amount of their brewing income to their own mothers elsewhere. Thus in some ways each of the

smaller nuclear families was an economic unit, but in much more important ways this was one large interdependent unit.

Despite its size this was a tightly closed unit. Apart from the help sent by the daughters in law to their own mothers it was made clear that as a household they asked no-one outside the household for financial help or other support, but neither did they give it: their solidarity and security (they were poor but not destitute) came from family within the compound. Such support would be lost in a survey where three different households would be recorded; one, which in terms of labour force would look to be extremely vulnerable with an old couple in their late 60s (the old woman still working collecting wood to sell), and two unmarried daughters (one of whom is too sick to work) each with a young daughter. Yet, in fact, this apparently vulnerable unit received security from co-resident sons, their wives and their older children.

4.3.1 Rural household size and poverty:

Sometimes the very openness of households combined with social responsibility of the household head caused serious economic stress

Case study 10: Accumulating dependents

Martin is 38 and lives in a small town in SW Burkina. He is the head of a household of 28 people all of whom he is responsible for feeding. They all eat out of one cooking pot every night and his 28 year old wife prepares the meals. Martin is extremely socially responsible. He sends grain and money to a child from an earlier relationship and two children from a previous marriage saying that he would feel ashamed if he didn't support them. He describes himself as unlucky – his grandparents and his father all died young and as the oldest son he inherited their social obligations: he thus supports his mother (58), his father's unmarried younger brother (70), one of his grandfather's wives (75) and his father's divorced sister (45). When his paternal uncle died he inherited responsibility for two unmarried female cousins with two and three children respectively. He has 4 younger brothers and three younger sisters, one of whom is widowed with two young children. Two of his brothers are married, one with two young children, the other with a pregnant wife but their only source of income is the family fields so they too are dependent on Martin. He has two children of his own with his current wife. Along with all his responsibilities he also inherited the family fields and all the fit household members work on the fields in the wet season, and some of the women brew beer for personal income. Martin works part-time as a butcher and was very proud because he had recently managed to save enough to get electricity installed in one of the 7 houses in his compound – the one where he lives.

In Martin's case a large household and numerous dependents are contributing to poverty and stress but he is managing. If he did not have all these dependents his small nuclear family would be well off – but many of his current dependents would be destitute. By maintaining this open household and supporting these dependents not only is he reducing the net poverty in the community, he is also building up considerable moral credit. By investing in “wealth in people” one can foresee that, as the household's developmental cycle advances, his

siblings and children become more productive and the old people die that he could then become extremely secure. We encountered similar cases in urban Tanzania and Burkina where open households included more dependents than they could really cope with but by doing so kept large numbers of people out of extreme poverty.

Often large (emically defined) households resolve poverty because they permit diversification – as in the case of Maasai households where some adults cultivate, others looked after the cattle at the cattle camps and others worked as migrant labourers. The security provided by such large domestic units also allows them to be more open to receiving the less fortunate. Despite an extremely strong patrilineal ideology amongst the Maasai, for whom the word best translated as household, *olmarei*, means a patrilineal descent group, in 3 out of 8 of the detailed *olmarei* profiles we obtained, a married daughter was living in her father's *olmarei* either with her husband, or whilst her husband was off on labour migration trying to earn resources. In each case the household head said – “they are not really part of our *olmarei* but he is too poor to support her properly”. In one case the respondent specifically noted that he saw this as a temporary measure until her husband had got enough resources to go it alone. The value of “wealth in people” here is symbolised by the very fact of breaking the residential rules. The impoverished woman and her husband become less poor because they are absorbed into the larger household.

Another rural Tanzanian case exemplifies the dynamism of household economics (and thus the problems in capturing these in a survey), the extra-household support provided by kin and the ways in which dividing social groups into the smallest constituent parts ultimately loses all perspectives on the ways poverty is managed.

Case study 11: in the throes of accumulating dependents

Komo is a fairly poor newly married Maasai man with no children yet. His 60 year old mother and his 4 younger brothers (aged 13-30) live with him, although two of these younger brothers have been working away in Kenya for several months. Komo encourages them to keep most of their earnings in order to invest in livestock. Komo's older brother is in a separate household but he does nothing to take care of their mother. In many ways Komo is taking care of this older brother who is a drunkard, and his family: “my oxen work his field; his small children get milk from my cows; his older children get grain from my granary; his wife milks goats which belong to me”. He gave his brother a field of 5 acres and the village gave his brother's wife a field of 3 acres. Komo anticipates that “I will have to take care of them completely when my brother deserts”.

This is clearly a transitional phase whereby two smaller households are becoming a larger one – yet one is already almost totally dependent on the other. Poverty is here being managed by absorption and by openness. Even when they do merge the women will continue to have their own house and cooking pot and all surveys would treat them as separate households.

Applying any concept of household in rural Rufiji, Tanzania is difficult (Lockwood, 1998). In the study community some people are fishermen, some farmers, some both and many have other activities too. Both fishing and farming take place away from the village and the fields are about 10 miles away (a consequence of Tanzanian 1960s villagisation policies). Often some household members live by the fields all year round and others live in the village. There is much movement between the two, the harvests are largely shared, as is much of the labour on the fields but any survey would split the two parts of the household because they are residentially separate. Frequently an elderly couple lives at the fields and younger adults in the village – but long periods of time will be spent at the field in the farming season and children are particularly mobile. Within each of our identified domestic groups most married women had their own cooking pot and house: this would lead to further fragmentation of households in surveys – although some had separate houses but shared cooking pots (still separate households according to the DHS). Often young men slept somewhere else where there was more space, but ate in the family compound. The 17 households we interviewed in Rufiji would be at least 31 households using a DHS definition. Three further households had such complicated eating, cooking and sleeping arrangements that we were unable to work out how they would be treated in a survey. Because several of the studied households were related to each other, discussions around these relationships demonstrated further responses to poverty which show the role of household openness in addressing poverty crises. When households experience hunger or temporary acute poverty they join up with other households. One said “we each have our own *kaya* (household). Maybe when we are hungry we eat together: this can go on for months – one *kaya* will cook one day and one the next”. Furthermore they were also clear about which other relatives they did not have such reciprocal relationships with. Rufiji adults had well developed understandings about those they would cook with and share food regularly, sometimes or very rarely. Children, however, were able to move round much more freely; thus in a very poor household with inadequate food, the children would usually be able to access food in one or more other households. The elderly are in a different situation: whereas throughout our study populations it was usually clear where the elderly reside and who feels responsible for providing for an elderly person once they can no longer support themselves, in Rufiji there was considerable ambiguity about elderly residence and there were a number of elderly people with no clear affiliation to a specific household who would probably be omitted in a survey because they moved between households and were perennial visitors.

Thus in rural areas and small towns there are two key issues which need to be disentangled in order to understand the relationships between poverty and household size: firstly a major way of resolving poverty is for the poor to be either temporarily or permanently absorbed into a larger, wealthier unit, or to temporarily pool resources with another household. This may make wealthy households temporarily appear both bigger and poorer, whereas in fact it is their very wealth and security that has led them to be able to absorb the others in the first place: the very strategy for coping with poverty (combining to pool resources and problems) becomes an indicator of that poverty. A rather different issue is whether these strategies ever actually become apparent in survey data because of the tendency of survey household

definitions to split households into fairly minimal cooking and sleeping units which actually break up the real units of social solidarity so that they cannot be observed.

4.3.2 Urban household size and poverty:

In urban areas it is harder to say whether big households contribute to resolving poverty, because, since living space is both a key resource and constraint, the peopling of this space differs from rural areas. In both Dar Es Salaam and Ouagadougou the emic households recorded in urban areas were generally similar in size to those that would have been recorded in a DHS survey with the exception that several also included absent people who were seen as household members despite their absence. There were many cases of open households where those who were received into apparently well-off households would have been poor or destitute otherwise; often, but not exclusively, unmarried daughters and their offspring, and nieces and nephews who were orphaned or had migrated from rural areas.

Case study 12: Dar Es Salaam

Mary (44) is married to Nelson (46), who has been away working in a gold mine for two months. They own a house in a high density area of Dar Es Salaam. Nelson sends money regularly to Mary but she does not know for how long he will be away. Mary answered our questions, but was adamant that Nelson should be listed as household head. Mary lives with her three daughters, her granddaughter, and four nieces (taken in when their mothers died), two of whom have their own small children.

Although this household appears relatively wealthy (reporting two TVs and a fridge and own their house) most of the young women have little or no work and it is Mary and Nelson's determination to build their own house that has partly made them a magnet for the dependent nieces and their offspring. A survey would record them as a female headed household with 10 dependents,

5.0 Discussion

Our detailed analyses of these case study households in rural and urban Burkina Faso and Tanzania show the ways in which households are (mis)represented in survey data. It extends the ways of thinking about collecting data from, and about, households, by developing complementary analytic categories: openness and closedness. These analyses have serious implications for understanding what household level poverty statistics derived from surveys might be saying.

Survey definitions of a household often include the concept of individuals who eat together because this is assumed to indicate that they are an economic unit of consumption – and thus production. This automatically circumscribes the description of wealth/poverty to this group of people although, as we show, eating together frequently does not constitute the key economic unit of security but is more a consequence of practicality or traditions about cooking and daily food sharing. In practical terms it is often very difficult to identify who

does eat together because of shifting access to food (Case study 1, 9), and, in urban areas, poverty, which means that cooking and eating together is often impossible (Case Study 2).

Most survey definitions of a household assume that individuals are members of one household: many are not – they contribute to and/or take resources from two or more households and movements between households are often an integral part of poverty alleviation or poverty avoidance strategies. Education strategies are just one example of the ways in which people manipulate living arrangements and those of their children, making education a major contributor to spatial mobility (Case 3) and obtaining resources from a number of different sources (Case 7). Maintaining children / young adults in education is a major strain on many households' resources and the necessary strategies and sacrifices may themselves play a major role in influencing household structure, composition and openness.

The historical specificities of individual settings can also play a large part in determining household strategies. In rural Tanzania the natural resource base (agricultural land, water bodies, pastures) on which people depend may be geographically distant from villages, leading households to be geographically dispersed yet highly economically interdependent. Survey instruments and definitions that split these households into the geographical co-resident parts will make many look poorer and smaller than they actually are. Where structural influences (e.g.: villagisation) are very geographically variable, national level survey data may mask very local specificities.

The open nature of many households is a key dimension in both immediate poverty avoidance and long term strategies for insuring against isolation and poverty by building and consolidating networks of obligation (Cases 1, 2, 10). "Wealth in people" remains critically important in both urban and rural settings. Successful individuals or couples attract others and would-be medium sized households which are getting by may easily become large households with many dependents because of their (relative) economic success. Yet by becoming larger and absorbing the destitute or impoverished any relationship between household size/structure and economic security becomes muddled. Furthermore, immediate investment in 'wealth in people' even if it causes temporary hardship has potential long term benefits because of the reciprocal obligations generated. Strong obligations to help kin persist even in modern urban contexts and even if people have little themselves (Case 2).

6.0 Study limitations

Our research design, with a limited number of purposively selected households, is based on a relatively small number of cases drawn from quite poor communities, and excludes many middle class and better off households, particularly in urban areas. It is likely that these sorts of households may well have very different strategies – and being nuclear and closed may be a pathway to apparent economic success. However, the educated middle classes remain a small minority in most African countries and our analysis is strengthened by its comparative structure (urban vs. rural, Burkina Faso vs. Tanzania) and the diversity of contexts. By comparing multiple households across a number of dimensions, we reinforce the generalisability of our findings.

7.0 Conclusions

The implications of household definition for analyses of household survey data as they relate to poverty, are poorly understood and rarely studied (Beaman & Dillon, 2010; Hosegood & Timaeus, 2006; White & Masset, 2003), despite long-established challenges to the notion of bounded, stable economic units (Guyer & Peters, 1987). This lacuna persists despite a large volume of social science research that includes household-related indicators in its analyses. Our approach develops an interpretively grounded understanding of the ways in which households try to reduce, confront or avoid poverty, with profound implications for the ways in which we collect data from, measure and interpret, household survey data. Despite understanding that these issues matter, there is little discussion, and certainly no consensus, on how to first identify and then deal with them. Indeed, the published research, and the data upon which it is based, tends to ignore this issue, and continues to plug in standardised definitions of the household, based on long-established assumptions, and the indicators they produce.

One can see how this situation has arisen: for reasons of comparability the definition of the household in surveys has tended to follow census operationalization even though the two exercises – census and survey – have very different aims (Randall et al., 2011). The census is about complete enumeration and must avoid double counting. The purpose of surveys is usually to provide micro-level information about individuals, their relationships with others and the determinants of outcomes. These must be effectively recorded especially when key outcomes or determinants are related to poverty. Our evidence shows that many people – adults and children – mitigate and prevent poverty through membership or rights in resources of two or more households and therefore probably should be double (or multiple) counted in a survey, an approach that has been successfully implemented in limited South African analyses (Hosegood & Timaeus, 2006).

We consider that analytic findings and contradictory poverty research might simply be a function of how the survey household is defined and thus how data are collected. We suggest that some analytic findings might be implausible – for example, that larger households are poorer – and emerge simply as a function of the bounded approach to household definitions. The persistent use of restricted definitions of the household in many surveys – which cuts off key non-residential sources of, and drains on, resources – ignores many important resource flows: fees sent for children away at boarding school; remittances sent by a husband working away from home; money brought home by unmarried sons that work temporarily elsewhere; money sent by absentee parents to support their children being cared for by grandparents.

Some of these issues may be partly a function of the nature of cross sectional data – yet such an approach will remain the most practical and cost efficient way of trying to understand the nature and determinants of poverty and thus inform policy. Longitudinal data collection cannot be a panacea for a variety of practical and conceptual obstacles – there is no such thing as a household through time – simply the collection of individuals that comprise a household (however defined) at any one point in time. The household captured in a cross-

sectional survey is a snapshot of the stock of people and their attributes at a point in time. Most household surveys are unlikely to capture flows in and out of this stock at a variety of temporal and spatial scales. Is poverty simply too complex in order to be captured in a snapshot survey?

Here we come to the issue of open and closed households. Our case studies showed that openness is often a critical strategy for poverty avoidance or mitigation for both rural and urban households. Closed households seem to take three forms: those who are unwillingly forced to be closed and are often both poor and highly vulnerable; those who apparently choose to be relatively closed for diverse reasons that could not be elucidated in detail using our methodological approach; and, those whose strategic closedness is related to developing and achieving economic security. All these closed households will be well represented in cross sectional surveys both in terms of the people who live there and depend on resources and assets and the actual delimitation of these assets. The open households – which in our case studies of urban and rural poor were more numerous – are badly represented and because their openness is integrally related to poverty and poverty avoidance through the security posed by “wealth in people”, poverty statistics are based on data which do not and cannot represent the nature and extent of poverty and the creative ways in which people address it.

Closed households may be those who have no kin to call upon, either through bad luck or through mismanagement of developing links and obligations earlier in life. In many contexts such people have been observed to struggle to emerge from poverty because of their limited social relations and networks (Ellis & Freeman, 2004; Hargreaves et al., 2007; Hulme, 2004; Little et al., 2006; Peters, 2006; Whitehead, 2006) and they often include orphans, widowed or divorced women. Others appear to choose a closed route following what was predicted by modernisation theory and Goode’s ideas that African families would transform from large, extended families providing extensive support to more closed nuclear families more along the then European model (Goode, 1963). Those who have taken a closed route may choose not to seek help if things are going badly, because of pride or for reasons of conflict or tension. Equally there may be successful households who do not offer to support less fortunate kin because they want to invest the majority of their resources into their own children in order to maximise further success. It seems likely that those with this approach will also be those who are most likely to control fertility and have relatively small family sizes. Open households are those for whom “wealth in people” remains a powerful social value; supporting vulnerable kin is seen as an obligation but may bring potential benefits in the future – strong social networks with multiples ties of obligation and support can offer good insurance against unknown future perils and well as the predictable problems posed by old age and potential incapacity. Our analyses revealed that open and closed households were found in all contexts in both countries.

The representation of households as bounded is an artefact of survey data collection that ignores the wealth of evidence that shows that many households and their members draw and receive not only monetary support, but also social and political capabilities, from beyond the

survey household. How can data be collected about these extra-household links and flows in a cross-sectional household survey whilst retaining coherent and manageable data collection tools? A first stage requires a rethinking about who is ex/included in the household and types of household membership. Any such questions will themselves bring potentially arbitrary decisions about, for example, a timeframe within which to ask questions about co-residence / dual residence and receipt/sending of resources to people beyond the co-residential household. One relatively straightforward way to improve survey household data is through improved relationship data collection. Most large-scale surveys record relationships to the household head thus assuming that individuals have access to that household through their relationship with the head – shown by many of our case studies to be an inaccurate assumption. By replacing this relatively arbitrary description of household structure with a household relationship grid (where the relationship - whether kin or not - of each person to every other household member is recorded), data collection is likely to improve not only who is recorded and, in a context where kinship remains an important source of obligations, why they are present and who they are related to, but also to identify who is missing (such as parents of grandchildren). A further advance would be to record the type of household membership and evidence of membership of other households.

Such approaches would improve the representation of open households and thus understanding of the contribution of “wealth in people” to combating and avoiding poverty. Much of the debate about how to study and measure poverty, its influences and its outcomes, is located in contrasting epistemological and disciplinary traditions that, on the surface, have little in common (e.g.: economics vs. anthropology). Such contrasting disciplinary perspectives, and languages, can make it difficult to open up conversations about the ways in which survey data can (and should) contribute to understanding poverty and its trajectories. We suggest that it is better to at least attempt to incorporate such arbitrary assumptions, rather than to simply continue with the current status quo of ignoring the issue that people and the links between them are an integral part of coping with poverty, uncertainty and insecurity in modern Africa, both urban and rural.

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References

- Aboderin, I. (2004). Decline in Material Family Support for Older People in Urban Ghana, Africa: Understanding Processes and Causes of Change. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 59(3), S128-S137. doi: 10.1093/geronb/59.3.S128
- Alkire, & Roche. (2012). Beyond Headcount: The Alkire-Foster Approach to Multidimensional Child Poverty Measurement. In Ortiz, M. Daniels & Engilbertsdottir (Eds.), *Child Poverty and Inequality: New Perspectives*, (pp. 18-22). New York: UNICEF.
- Barrett, C. B., Carter, M. R., & Little, P. D. (2006). Understanding and reducing persistent poverty in Africa: Introduction to a special issue. *The Journal of Development Studies*, 42(2), 167-177. doi: 10.1080/00220380500404587
- Barrientos, A., & Mase, J. (2012). Poverty Transitions among Older Households in Brazil and South Africa. *Eur J Dev Res*, 24(4), 570-588.
- Beaman, L., & Dillon, A. (2010). Do Household Definitions Matter in Survey Design? Results from a Randomized Survey Experiment in Mali. *IFPRI Discussion Paper*, 01009, 32.
- Bigsten, A., Kebede, B., Shimeles, A., & Tadesse, M. (2003). Growth and poverty reduction in Ethiopia: Evidence from household panel surveys. *World Development*, 31(1), 87-106.
- Booyesen, F., van der Berg, S., Burger, R., Maltitz, M. v., & Rand, G. d. (2008). Using an Asset Index to Assess Trends in Poverty in Seven Sub-Saharan African Countries. *World Development*, 36(6), 1113-1130. doi: <http://dx.doi.org/10.1016/j.worlddev.2007.10.008>
- Ellis, F., & Freeman, H. A. (2004). Rural Livelihoods and Poverty Reduction Strategies in Four African Countries. *The Journal of Development Studies*, 40(4), 1-30. doi: 10.1080/00220380410001673175
- Emwanu, T., Hoogeveen, J. G., & Okiira Okwi, P. (2006). Updating Poverty Maps with Panel Data. *World Development*, 34(12), 2076-2088. doi: <http://dx.doi.org/10.1016/j.worlddev.2006.03.005>
- Fisher, M., Reimer, J. J., & Carr, E. R. (2010). Who Should be Interviewed in Surveys of Household Income? *World Development*, 38(7), 966-973. doi: <http://dx.doi.org/10.1016/j.worlddev.2009.11.024>
- Goode, W. (1963). *World Revolution and Family Patterns*. New York, London: Collier-McMillan.
- Gräb, J., & Grimm, M. (2011). Inequality in Burkina Faso-to what extent do household, community and regional factors matter? [Article]. *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, 174(3), 759-784. doi: 10.1111/j.1467-985X.2010.00686.x
- Grandin, B. E. (1988). *Wealth ranking in smallholder communities: a field manual*: Intermediate Technology Publications.
- Guyer, J. I. (1981). Household and Community in African Studies. *African Studies Review*, 24(2/3), 87-137.
- Guyer, J. I., & Peters, P. E. (1987). Introduction. *Development and Change*, 18(2), 197-214. doi: 10.1111/j.1467-7660.1987.tb00269.x
- Halliday, T. J. (2010). Mismeasured Household Size and its Implications for the Identification of Economies of Scale*. *Oxford Bulletin of Economics and Statistics*, 72(2), 246-262. doi: 10.1111/j.1468-0084.2009.00570.x
- Hargreaves, J. R., Morison, L. A., Gear, J. S. S., Kim, J. C., Makhubele, M. B., Porter, J. D. H., . . . Pronyk, P. M. (2007). Assessing household wealth in health studies in developing countries: A comparison of participatory wealth ranking and survey techniques from rural South Africa. *Emerging Themes in Epidemiology*, 4.
- Hosegood, V., & Timaeus, I. (2006). Household composition and dynamics in KwaZulu Natal, south Africa: mirroring social reality in longitudinal data collection. In E. van de Walle (Ed.), *African Household: Censuses and Surveys*. New York: Sharpe.
- Howe, L. D., Galobardes, B., Matijasevich, A., Gordon, D., Johnston, D., Onwujekwe, O., . . . Hargreaves, J. R. (2012). Measuring socio-economic position for epidemiological studies in

- low- and middle-income countries: a methods of measurement in epidemiology paper. *International Journal of Epidemiology*, 41(3), 871-886. doi: 10.1093/ije/dys037
- Hulme, D. (2004). Thinking 'Small' and the Understanding of Poverty: Maymana and Mofizul's story. *Journal of Human Development*, 5(2), 161-176. doi: 10.1080/1464988042000225104
- INDEPTH. (2013). INDEPTH Network: Better Health Information for Better Health Policy Retrieved 18th March, 2013, from <http://www.indepth-network.org/>
- Jagger, P., Luckert, M. K., Banana, A., & Bahati, J. (2012). Asking Questions to Understand Rural Livelihoods: Comparing Disaggregated vs. Aggregated Approaches to Household Livelihood Questionnaires. *World Development*, 40(9), 1810-1823. doi: <http://dx.doi.org/10.1016/j.worlddev.2012.04.030>
- JohnsonHanks, J., Caldwell, J., Dennis, S., Guyer, J., Miyazaki, H., Notermans, C., . . . JohnsonHanks, J. (2005). When the future decides. *Current Anthropology*, 46(3), 363-385.
- Kakwani, N., & Silber, J. (2008). Introduction: Multidimensional Poverty Analysis: Conceptual Issues, Empirical Illustrations and Policy Implications. *World Development*, 36(6), 987-991. doi: <http://dx.doi.org/10.1016/j.worlddev.2007.10.004>
- Krishna, A. (2004). Escaping Poverty and Becoming Poor: Who Gains, Who Loses, and Why? *World Development*, 32(1), 121-136. doi: <http://dx.doi.org/10.1016/j.worlddev.2003.08.002>
- Little, P. D., Stone, M. P., Mogue, T., Castro, A. P., & Negatu, W. (2006). 'Moving in place': Drought and poverty dynamics in South Wollo, Ethiopia. *The Journal of Development Studies*, 42(2), 200-225. doi: 10.1080/00220380500405287
- Lockwood, M. (1998). *Fertility and household labour in Tanzania: demography, economy, and society in Rufiji District, c. 1870-1986*: Oxford University Press, USA.
- Mushongah, J., & Scoones, I. (2012). Livelihood Change in Rural Zimbabwe over 20 Years. *Journal of Development Studies*, 48(9), 1241-1257.
- NBS. (2009). Tanzania National Panel Survey Report: Round 1, 2008-2009 (pp. 93). Dar Es Salaam, Tanzania: National Bureau of Statistics.
- Ojiako, I. A., Manyong, V. M., & Ikpi, A. E. (2007). Determinants of rural farmers' improved soybean adoption decisions in northern Nigeria. *JOURNAL OF FOOD AGRICULTURE AND ENVIRONMENT*, 5(2), 215.
- Owens, T., Sandefur, J., & Teal, F. (2011). *Poverty Outcomes and Incomes in Ghana and Tanzania: 1987-2007. Are macro economists necessary after all?* Paper presented at the CSAE 25th Anniversary Conference <http://www.csaee.ox.ac.uk/conferences/2011-EDiA/papers/490-Teal.pdf>.
- Peters, P. E. (2006). Rural income and poverty in a time of radical change in Malawi. *The Journal of Development Studies*, 42(2), 322-345.
- Qizilbash, M., & Clark, D. A. (2005). The Capability Approach and Fuzzy Poverty Measures: An Application to the South African Context. 74.
- Randall, S., Coast, E., & Leone, T. (2011). Cultural constructions of the concept of household in sample surveys. *Population Studies*, 65(2), 217-229.
- Roth, C. (2010). Les relations intergénérationnelles sous pression au Burkina Faso. *Autrepart*(1), 95-110.
- Scoones, I. (1995). Investigating difference: applications of wealth ranking and household survey approaches among farming households in southern Zimbabwe. *Development and Change*, 26(1), 67-88.
- Seeley, J. (2008). *Lessons on defining the household from a study of socio-economic status and HIV and AIDS in rural Uganda*. Paper presented at the Defining the Household: Implications of Household Definitions in Surveys and Censuses, Department of Anthropology, University College London. <http://www2.lse.ac.uk/socialPolicy/BSPS/dayMeetings/DefiningtheHousehold.aspx>
- Sharp, K., & Devereux, S. (2004). Destitution in Wollo (Ethiopia): chronic poverty as a crisis of household and community livelihoods. *Journal of Human Development*, 5(2), 227-247.

- Toulmin, C. (1992). *Cattle, women, and wells: managing household survival in the Sahel*: Clarendon Press.
- White, H., & Masset, E. (2003). The importance of household size and composition in constructing poverty profiles: an illustration from Vietnam. *Development and Change*, 34(1), 105-126.
- Whitehead, A. (2006). Persistent poverty in north east Ghana. *The Journal of Development Studies*, 42(2), 278-300.

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