

The power of the interviewer

Sara Randall

Department of Anthropology,
University College London

Ernestina Coast

Department of Social Policy
London School of Economics

Natacha Compaore

ISSP, Ouagadougou

Stephen Ojiambo Wandera

Department of Population Studies,
Makerere University, Kampala, Uganda

Paper presented at 6th African Population Conference, Ouagadougou, December 2011

Session: 1506 Anthropological Demography and Qualitative Research

Acknowledgements

The research in Tanzania was funded by the ESRC (UK) (RES-175-25-0012) under the Survey Design and Measurement Initiative. The research in Burkina Faso, Senegal and Uganda was financed by ESRC(UK) and ANR (France) under the collaborative research programme (RES 062-33-0007). We would like to thank all our respondents in all the countries and the other members of the research team for their ideas and inputs during the project workshops.

Introduction

Censuses and surveys in Africa remain almost totally dependent on interviewers for data collection. Data quality is ensured by quality training and supervision, along with comprehensive interviewers' manuals. However most African countries are multi-lingual and many of the concepts and definitions used in data collection are difficult to translate into local languages; some have close parallels, whereas in other languages detailed explanations need to be given. Some concepts, such as the household, may have multiple criteria (eg sleeping, eating together and recognising the authority of a single household head) which may not be fulfilled by everyone and interviewers have to prioritise different criteria. Other questions introduce alien concepts or ideas which may require considerable explanation on the part of the interviewer in order to get the right sort of answer.

The issues

Surveys are the main source of knowledge about living arrangements, well-being, poverty, demographic dynamics and a range of other indicators in Africa and are thus critical for policy and planning; both reliability and validity of the data are critical. Sampling frames for surveys are often drawn up from the census and then maintained with careful understanding and presentation of sampling errors. To ensure reliability and validity substantial field pretests are undertaken and surveys build on the experience of previous surveys and on previous experience and knowledge obtained from those who have worked in data collection (Verrall, 1987). Nevertheless, once the data have been collected and entered, many analysts pay less attention to non sampling errors than to sampling errors. This acceptance and use of data at face value is probably becoming more widespread with increased use of standardised international survey series such as DHS, where analysts can access and download data easily, can use standardised formats and variables, cleaned consistent data and need pay little attention to any difficulties encountered in the field.

Some sources of non sampling errors are due to inability to answer the question – for example age questions in many rural areas – whereas others result from difficulties of translation of key concepts or the application of particular criteria which do not match local realities very well. Further discrepancies may arise from different understandings, priorities and ideals of interviewers whose own preconceptions or personal characteristics may influence how they see and interpret others.

The critical role of the interviewer in persuading respondents to participate and in the quality of the data collected has long been evident and analyses of the role of the interviewer have shown how interviewer characteristics themselves can transform certain types of data: one example comes from the US census in the late nineteenth century where the social class and gender of enumerators led to very different proportions of respondents being classified as black or mulatto (Washington in Schoh 2009). Emphasis on training and supervision on the whole data collection process is a major part of this, and most enumerators' manuals specifically outline the importance of this role as go-between.

As identified by Levinson in discussing a sensitive survey on sexuality in France (Levinson 2008) interviewers have to play two very different and contrasting roles: when trying to persuade individuals to participate in the survey and accept to be interviewed, they need to use all their social skills to convince the respondent that willing participation is a good use of their time. This phase requires fluent persuasive skills and the scripts tend to be different for each respondent. In contrast when actually administering the questionnaire they have to follow the wording precisely, are not supposed to ad lib and have to be extremely careful if they are asked to explain questions or concepts so that they don't introduce bias or leading questions. In much of Africa, where illiteracy levels remain high and where many people are unfamiliar with research in general and with surveys in particular, including many of the survey concepts, these roles are more accentuated. Furthermore the different power relations between interviewer and interviewee may be very substantial: age, gender, education urban and rural origins are major issues but ethnicity and language often come into play too.

Methodological research that focuses on interviewer-interviewee interactions is characterised by research conducted in high income countries, focusing largely on response rates (O'Muircheartaigh & Campanelli, 1998 ; Durrant et al; Davis et al 2009; Powell et al 2010; Campanelli et al 1997; De Leeuw et al 1998; Hox & de Leeuw 2002; Blom & de Leeuw 2010). There is very little research on survey interviews that is based on evidence from low or middle income settings, with a few notable exceptions, three of which focus on the effect of the sex of the interviewer (Becker et al, 1995; Blanc & Croft, 1992; Flores-Macias & Lawson, 2008). We identified just five pieces of research that consider an aspect of the interviewer-interviewee interaction in sub-Saharan Africa (Cheng et al, 2011; Blanc & Croft, 1992; Weinreb, 2006; Becker et al, 1995; Verrall, 1987).

Two pieces of research involving the DHS in SSA tested the traditionally assumed wisdom that in fertility surveys, female interviewers are required to ask women questions about sensitive topics such as family planning and sexual behaviour (Scott & Singh, 1981). Early work, based on the DHS precursor, the WFS, in Ghana showed a preference by respondents for female interviewers compared to men, although there were no differences in refusal rates (Verrall, 1987). Becker et al's (1995) research in Nigeria used an experimental design in order to quantify the effects of the sex of the interviewer for fertility and family planning surveys. With the exception of one (out of four) states, weak evidence was found to mitigate against the use of male interviewers, and in two states levels of reported contraceptive knowledge were higher when male interviewers conducted the survey. Work by Blanc and Croft (1992) in Ghana, focusing on reports of contraceptive knowledge, showed significantly higher levels of knowledge reported from interviews conducted by male interviewers compared with their female counterparts.

Weinreb and Sana's (2009) research, also dealing with the DHS, this time in Kenya, considers the implications of non-standardised "on the spot" translation during the interview (in the absence of an interviewer having the necessary language for the interviewee), and find that the effects are large for multivariate analyses based on these data. The absence of recent methodological interview research from large-scale internationally comparable surveys such

as the DHS is notable. Rather more reflection is found from individual research projects, for example, the work of the MDICP in Malawi ([www](http://www.mdicp.org)). For example, work by Bignami-van Assche et al (2003) concludes that questionnaire translation is less important than “the selection, training, and supervision of interviewers”, underlining the importance of this human resource for surveys.

The final two pieces of methodological research from non-HIV settings also consider issues of interviewer gender. Flores-Macias & Lawson’s (2008) study in Mexico examines the effects of interviewer gender on household survey responses, and found that the effects were geographically varied, with large differences between the capital and the rest of the country. They concluded that gender of the interviewer should be recorded in order that analyses might test for (and if necessary control for) interviewer gender effects on survey data. Benstead’s (2010) research considers the effect of interviewer gender (and mode of dress, modern versus traditional) for question response, and notes that interviewer characteristics affected responses to the majority of survey questions that were tested.

This study adds to the methodological research that considers the interview interaction in face-to-face surveys in three important ways. Firstly, it contributes to the very limited research that is published on interview methodology from low income countries in general and SSA in particular. Secondly, it is the only comparative research design that we are aware of which crosses both countries and linguistic traditions and thus strengthens the robustness and applicability of our findings. Recent Europe-based research has shown clearly the influence of country-level differences in interviewer effects, resulting in the IQUEST project to facilitate cross-country comparative research into the role of the interviewer in the survey process. No such work exists outside Europe.

In this paper we want to try and identify key areas where ambiguities may have a strong influence on data validity. We juxtapose data from different sources to set up hypotheses about the extent to which different actors along the chain of production and utilisation are aware of these problems and take them into account. We also highlight the role of different sorts of power in contributing to these ambiguities.

Research methods

The data come from two research projects investigating the definition of the household in Tanzania, Senegal, Burkina Faso and Uganda. These data are complemented by insights from long term demographic quantitative and qualitative research in these countries and neighbouring countries.

Three main research methods are used. First, we have undertaken around 30 in-depth interviews in each country with people along the chain of data production and use: interviewers, supervisors, analysts, statisticians, academics, survey designers and commissioners and data users, including several respondents in each country from different levels within the national statistics office. These key informant interviews focus in particular on respondents’ knowledge and understanding of different definitions of the survey

household in their country and their perceptions around types of people or situations that are difficult to capture or represent well in household surveys (Randall et al 2011). In all four countries we make extensive consultation of methodological material provided for recent censuses, DHS surveys and living conditions / household budget surveys: these include questionnaires, definitions, enumerators' manuals (with examples to help train interviewers), reports and documentation on harmonised concepts within each country. Thirdly we use a series of qualitative interviews (mainly in urban and peri-urban neighbourhoods but also including rural areas) undertaken with households where we explore their perceptions of their own household / domestic group membership (without imposing any definitions), who they would include (whether present or absent) and why they would include these people and whether these justifications focus more on authority, residence, affective relationships or economic relationships. We collect data on sub-groups who cook and eat together, residential arrangements and sources of revenue within the household and to and from other households. These data are recorded on household grids, much as in surveys, but with many supplementary observations and qualitative comments. Exercises undertaken using these membership defined households identify who would be included or excluded using different survey and census definitions and inclusion criteria. They also allow us to establish real-life ambiguities – where people really cannot say that a specific person belongs to just one household or where different people within a household might have contradictory perspectives.¹

Each method generates a different perspective on survey and census data. Key informant interviews provide information on the different priorities in that country in terms of selecting which aspect of the household definition is most important in cases where sleeping under one roof, eating together and authority of a head of household do not necessarily encompass the same individuals. Furthermore they highlight situations where different players in the data collection process prioritise different criteria. These interviews also indicate areas where, within one country – or even within one institution – there may be different understandings of key demographic concepts which may draw on individuals' training, their personal experience or the languages they speak. They suggest different ways in which alien concepts might be approached in diverse contexts and, by drawing on respondents' personal experiences, present a diversity of context specific approaches to matching demographic questions and concepts with local realities. We also investigate systematically different people, populations and situations which respondents have found to be problematic in their own personal experience of collecting, analysing or using demographic data.

¹ An interesting example occurred in Ouagadougou. In a large and complicated compound with 7 small houses all occupied by related individuals who seemed to rotate where they slept quite frequently, we were trying to establish whether it would be considered one or several households in a survey. We asked how many cooking pots there were and who ate out of each cooking pot. There were two cooking pots, each belonging to a different adult woman, the co-wives of the man (now dead) who used to own the compound. If a meal were prepared all those in the compound could eat together including both co-wives. A young boy aged 11 or 12 listening to all this then said in a resentful tone 'but no-one has done any cooking at all in this compound for at least 10 days'.

Survey documentation, training manuals, reports on harmonised concepts and definitions allow analyses of changing concepts and definitions over time, reformulations of questions and concepts (either as a result of lack of clarity in previous data collection exercises or as a result of harmonisation of concepts either within a country or between countries in international survey series. In combination with key informant interviews and the household case studies (described below) they allow an identification of situations where there is ambiguity or uncertainty or where a concept does not match well with a particular local situation and thus allows considerable scope for an interviewer or supervisor to shape how the data are collected.

The household case studies generated many examples where definitions did not match local organisation and situations which were clearly not foreseen in the drawing up of data collection instructions and definitions. They highlighted many situations where there were clear problems with translation.

Results

Negotiating who is in and out of a survey

The first power in the hands of the interviewer is that of including or excluding the household or the individual from the survey altogether. Such inclusion or exclusion might be a function of poor listing, but it might also be a situation where the interviewer follows the listing despite subsequent information which might suggest another configuration (case study 1)

Case study 1:

On the edge of a small Bukinabe town, Mohammed lives in a compound which has 7 rooms around three sides of the compound. Each of his three wives has a separate room and his 24 year old son Ibrahim lives in a hut 50 metres behind the main compound. Ibrahim and his two pregnant wives do not cook separately but always eat with Mohamed. Mariama, Ibrahim's first wife, sleeps in the room in the compound which belongs to Ibrahim's mother (where the mother also sleeps). Ramata, his second wife sleeps with Ibrahim in his hut. Mohammed says that he is the household head and the authority and that Ibrahim and his wives are part of his household; he feeds them from the produce of family field on which Ibrahim works, although Ibrahim also earns a little bit of money in the dry season from a barber's business. That money he keeps for himself and his wives to buy their clothes and other necessities. Mohamed is clear that Ibrahim and both his wives are part of his household and they form one production and consumption unit. Discussions with two enumerators who had worked both for the census and the DHS survey about how this domestic group would be recorded were inconclusive. In the census, which in Burkina does not allow for more than one married couple within a household, this would be two households. However for the DHS it was less clear. The final consensus was that if Ibrahim appeared on the listing as a separate household then, despite the fact that he ate with Mohammed, accepted Mohammed's authority, farmed with Mohammed and one of his wives slept in one of Mohammed's rooms, he would be treated as a separate household. However if

Ibrahim's house was not listed as a separate household he, and both his wives, would be included in Mohammed's household. The female interviewer said 'But that would mean a lot of women and a lot of questionnaires'. The impression we got was that, if the interviewers could legitimately avoid adding Ibrahim and Ramata to an already large household (and thus heavy workload), they would exclude them.

The interviewer also has the power to include or exclude by not doing the extra work needed to find or persuade the less easy to find households

I What sorts of problems can you remember?

R.The other was due to, maybe weather, sometimes you are here and sometimes it rains a lot and you have to reschedule. But the problem that the interviewer....has is the reluctance of respondents, some, maybe that when you interview them you will give them some gifts or there is some expectation. So actually to a large extent it was due to the understanding capacity of the respondent, on what the interview would be about and what would be the expectation. So then if you don't tell them that that is what is happening. And the other thing, if you meet them through a wrong channel, if you don't go through the other village leaders.

I ah, the administration?

R Right. Because some of the interviewers you know, perhaps they want to finish their job quickly, they go straight there and not passing the other ways. So these are the things. Just to mention a few

(Tanzania: Central Bureau of Statistics survey supervisor)

Survey designers recognise that these problems of decision making exist but there is not much that can be done once the data have been collected. This description of a 'loose enumerator' is a problem that was brought up in many contexts

yeah, I think the major problem with this concept of household as you know household can have many people in it or you can be an individual to be a household. So in the case of individual households, at times obviously, if they are not available at the time you are doing your study or you are developing your frame then you might end up with undercoverage at a later stage and again that's one major problem I see in this concept, especially one person household - very easy to omit in the study. Then if in the definition of people who eat together who seems common... as I told you there maybe cases of duplications in the case of village or a group, I myself for example, my aunts and my mother and all that, taken I would define them as different households we did a lot of things together so if you have a loose enumerator he may put them all into one household. (African demographer working for UN organisation. New York)

Although such power to include or exclude should, in theory, be covered by good training and supervision, 'loose enumerators' cannot always be controlled, and it is difficult for supervisors to identify when individuals are wrongly excluded or included.

Negotiating who is in and out of the household

Once a household has been selected for the survey, or has been identified for the census, the interviewer has to decide who should be included or excluded from the household listing. There are many different dimensions to these decisions which vary from survey to survey, country to country and population to population.

Despite the endeavour of harmonisation of statistical concepts such as the household and the production of documents on these harmonised concepts (Burkina Faso 2009, Tanzania XXX, UBOS 2006)– in fact, within countries different definitions of household continue to be used; these range from similar ideas using slightly different wording, to substantially different definitions because of different aims of the data collection exercise; all however use the term household / ménage. Thus in Burkina Faso, certain configurations of ‘domestic group’ could be recorded in three different ways according to the census, the DHS and the Living Conditions survey. The same is true in Uganda as highlighted by this UBOS statistician.

So, for example, if you come to the census, a household head definitely is someone who provides the meals, who carries out the major decisions in the household. That is who we consider the household head. But then when you come to this survey in particular, uh, it is kind of different. Like if in, for example let me take a polygamous family.

I: yeah sure sure

R: ... there is one husband with several wives. So he is a household head everywhere. In the census, he is the household head.....but when it comes to other surveys, where he spends the night is where he is the head and in other areas, he is not the head. ... so when you come to now running the relationship status it is kind of arose.: ... so, if you ran for this household and the same household in another survey you would find different outcomes. (statistician UBOS, Uganda).

On the other hand there is evidence in Senegal that whatever the definition used by surveys imposed from the outside (eg DHS) in fact the same definition is used by Senegalese interviewers all the time. One of the key differences between Senegal and the other African countries is that in Senegal many surveys actually give examples of Wolof (and other language words) terms which should be used to collect household data. This makes the concept much more stable and less subject to interpreter variation – and also gives rise systematically to the largest households in Africa (Pilon & Vignikin 2006).

Senegal Census 2002: household definition

A household is generally defined as being a group of people, related or not who live together under the same roof, pool some or all of their resources to meet their basic needs of accommodation and food. These individuals, called household members generally take their meals together and recognise the authority of a single person, the household head (CM). In our national languages the ideas of « njël » in wolof, « ngank » in sereer, « hirande », in pulaar and « stiitik » in diola are reliable translations of the concept of the household.²

² *Un ménage est défini généralement comme étant un groupe de personnes apparentées ou non, qui vivent ensemble sous le même toit et mettent en commun tout ou partie de leurs ressources pour subvenir à leurs besoins essentiels, notamment le logement et la nourriture. Ces personnes appelées*

Burkina Faso, Census 2006, Definition of household

Basic socio-economic unit whose members can be related or not. They live together in the same compound, pool their resources and share food and other general needs. They acknowledge one member as household head irrespective of sex.

A household usually consists of a man, his wife /wives, his unmarried children, other kin and unmarried domestic servants who live with them

NB: in compounds or houses occupied by parents with their married children, you should treat the parents as a separate household from those of their married children. Each married child (with his wife/wives and their unmarried children) constitutes a household. On the other hand if one or the other of the parents depends on his/her married child he belongs to that child's household

African household definitions usually include some combination of cooking/eating together, living under the same roof and recognising the authority of the same household head. However, on the ground, often these three criteria do not match up; with people eating but not sleeping together, or vice versa and different interpretations of household head either according to age or economic provision. In different countries different criteria are prioritised: in Uganda the cooking pot dominates;

a household has got a standard definition. We look at 2 elements to define a household. The first one actually the most important is the eating area. People must be dining together. They may live together but as long as they are not feeding from the same pot, then those ones are different households. (Uganda: UBOS)

In Tanzania the sharing of food is also prioritised even to the extent that those sleeping elsewhere might be included. From the quote below we see enumerator power in the judgement of how far away constitutes a separate household and the degree to which enumerators are prepared to investigate where non-resident people are sleeping.

But this question of one roof also sometimes brings difficulties. Because you find that you have your children there but because this house is not enough they are covered under another roof. But you coordinate everything, you eat there, you share the costs, everything, including the rent of the other room where they sleep. Now if you say sleeping under one roof you may miss out those ones. So we specify that. Even if there are some family members or the household members who don't really sleep there but they are taken care of by that household and they are under one head of household, then they should be included in that household..... They are a single household in the urban area because in that case it would be difficult to capture the other parts. When they are together and just near by then you are sure that they are in the same household but for example, me I am here in Dar es Salaam and my husband is in Moshi, now for the enumerator to coordinate this it will be difficult. So in

membres du ménage, prennent généralement leurs repas en commun et reconnaissent l'autorité d'une seule et même personne, le chef de ménage (CM). Dans nos langues nationales les notions de « njël » en wolof, « ngank » en sereer, « hirande », en pulaar et « stiitik » en diola, rendent fidèlement le sens du concept de ménage.

that case we count the husband as a single person household and then the wife and the children who are there as another household. (senior demographer, NBS, Tanzania)

In the Burkina census, marital status is also critical because the definitions are very clear that a household may not contain more than one married couple – although co-resident polygamous wives are all included with their husband. Thus even though sharing food figures in the definition the need to separate out married couples takes priority. Furthermore in Burkina Faso the Tanzanian example above would be treated differently demonstrating that for Burkinabe surveys sleeping within the household is a key requirement for membership .

Case study 2: Burkina

Ouagadougou is surrounded by spontaneous unplanned settlements (the non-loti). The government is gradually expanding the city by taking over these settlements, evicting the residents and then setting out planned areas with plots of land, roads and services. People living in the unplanned area before it is taken over have the right to be considered for a plot after planning, although there are never enough plots to go round. Strategies to increase the chances of getting a plot include building small houses in the non-loti and installing someone (often a young man) who sleeps there every night to show that the house is inhabited: it is assumed that those who decide on eligibility for a plot will come round one night and see which houses are really occupied. Usually this young man spends the day in the city, eats in the family house before trekking out to the small house in the non-loti to spend the night there. These young men form part of the economic unit of their parents where they eat and keep most of their possessions, and, indeed spend much of their time. Yet the priority of where people sleep in Burkina means that they are treated as a separate household and enumerated where they sleep (if, in fact they are ever found there).

Such cases, which are frequent in Ouagadougou where people are desperate to get title to land plots, both distort data on household characteristics but give considerable power to the interviewer in deciding where to place these dual habitation young men whose parents see them as unequivocal members of their household, where they would be situated on an economic and cooking pot definition. Several key informants who had worked on Burkinabe data collection highlighted this problem with the non-loti, thus apparently prioritising sleeping place. However another former interviewer focused just on a common economy and the authority of a household head:

They must recognise the authority of this person and they must pool together their resources. There are places where you arrive ...well....you will find heads of families living in the same compound....you need to distinguish them..often there are the old men, the grandfathers who are there, and the father who is there and you have to separate out, these different cases, distinguish the households – it's not that easy. So those are the sorts of cases that face

us....[hesitation] the household, that's to say that they must recognise the authority.³
(statistician and former INSD interviewer, Burkina)

Various interviews from Burkina suggested that in fact there were different interpretations of the same instructions thus giving each interviewer his own way of working. With respect to defining a household as the unit who recognise one head of household we have these conflicting statements in response to a similar scenario:

I are there times when you have, let's say you have a compound with a father, his wife, his two sons with their wives and their children. In Burkina that's how many households?

R. [hesitates] The household, that means they have to recognise his authority

I So, if they recognise the authority of the old man?

R In that case, we take that as one household. It depends on the surveys, in the surveys that I have done it's generally like that⁴ [statistician and former interviewer, Burkina]

I: so in your opinion, for example in a rural area you have a large compound with the old man, his wife and then three adult sons. Would you take all that as one household?

R Yes, it depends. If those sons there, if those sons are married, they have their wives, that constitutes another household

I Even if the old man considers that the son and his wife are part of his household?

R: Yes. If the old man is there, and his sons are there and if his sons are not married there's no problem, you include them. But if they are married, that, that's a separate household. [Burkina DHS and census interviewer]⁵

³ Voilà. Ils doivent reconnaître l'autorité de cette personne et ils doivent mettre en commun leur production. Il y a des endroits où tu arrives...bon... tu vas trouver que des chefs de famille qui vivent dans les mêmes concessions tu dois faire la diff – souvent il y a de vieux, des grands pères qui sont là, bon, et le papa qui est là, bon, tu dois faire la différence entre... dans ces différents cas, distinguer les ménages ce n'est pas aussi facile quoi. Donc ce sont les cas auxquels on est confrontés. [hésitation] le ménage, c'est-à-dire qu'il faut qu'ils reconnaissent l'autorité.

⁴ *I Et est-ce qu'il y a des fois que vous, vous avez dit - bon - prenons une concession où il y a un père avec sa femme, ses deux fils avec leurs femmes et avec leurs enfants. Au Burkina ça c'est combien de ménages ?*

R. Er [hésitation] le ménage, c'est-à-dire qu'il faut qu'ils reconnaissent l'autorité.

I Donc s'ils reconnaissent l'autorité du vieux.

R Voilà du vieux, bon on prend ça comme un seul ménage. Ca dépend des enquêtes, les enquêtes qu'on a eu à faire c'est généralement ça

⁵ *I: donc, à votre avis, par exemple en zone rurale, vous avez une grande concession avec le vieux, la vieille et puis trois fils adultes. Vous prenez tout ça comme un ménage ?*

R: oui, ça dépend. Si ces fils là... si ces fils sont mariés, ont des femmes, là, ça constitue un autre ménage.

I: même si le vieux considère que le fils avec sa femme font partie de son ménage ?

R: oui. Puisque le monsieur est là, il y a ses fils qui sont là, si ses fils ne sont pas mariés là, eux, il n'y a pas de problème, tu les prends. Mais s'ils sont mariés, ça, ça constitue un autre ménage à part.

Such complexities and ambiguities (and thus power of the interviewer) are widely recognised by those in Burkina who have done fieldwork .

I But when you say that it's a response to needs – whose needs are they? The needs of the population who is represented in the statistics or the needs of the funding agency or the statisticians? I would like your personal opinion

R (laughs)I think it's more the needs of the technicians and the funding agencies. That's to say that those people, they conceptualise things right from the beginning. When they arrive in the field they apply these ideas. In general those who design survey, it's rare that they actually go out into the field.⁶

Yet there are also cases that no-one really knows what to do with them, such as the children in coranic schools with a master or temporary residents in gold mines.

I don't know if you have already visited the gold mines. I've been there and when you are there, there are no houses. They just have simple shelters. You can see a young man, he spends a month there but he doesn't even have a shelter to sleep in. He works, at night he wanders around like that, if he finds a tree he will sleep under the tree, he'll just rest as he needs and the next day...so for these particular cases, even in the census, if they are strict in enforcing that you mustn't count this person in his household of origin, you still can't census him on the gold site. What [house] will you link him with? So these categories of people – it's really complicated.⁷(experienced interviewer on censuses and surveys, Burkina)

With the exception of Senegal no local language words are provided for household definitions – which remain a statistical concept to be applied, explained and followed by interviewers. Discussions with key informants from national statistical offices and international advisors make it clear that they see the 'household' as a demographic concept with particular boundaries and definitions whose limits need to be learnt by both the interviewers and the respondents.

The concept of household... How I have understood the household...personally what I use in our household is people who live together like mother, father and children and may be some relatives.... But then when I joined, professionally I have come to learn it

⁶ *I Mais quand vous dites que c'est pour répondre au besoin des choses ce sont les besoins de qui ? Les besoins de la population qui sont représentés dans les statistiques ou c'est les besoins des bailleurs de fonds ou des statisticiens ? Je veux ton avis personnel.*

R (rires) je pense que c'est plus les besoins des techniciens et les bailleurs de fonds. Ça veut dire que les gens ils conçoivent les choses dès le départ. Maintenant, arrivés sur le terrain ils appliquent. Généralement, ceux qui conçoivent, généralement, rares sont ceux qui partent sur le terrain.

⁷ *je ne sais pas si vous avez déjà visité les sites d'or, moi j'en ai visité, quand tu vas là-bas il n'y a pas de maisons. C'est de simples hangars qu'ils font. Tu peux voir un jeune il va passer un mois là bas, il n'a même pas d'hangar pour dormir. Il travaille, la nuit il se promène comme ça s'il gagne un arbre il dort sous l'arbre, il se repose, juste le temps de se reposer et le lendemain... Donc pour les cas précis, même lors du recensement si strictement on ne doit pas prendre cet individu dans son ménage d'origine on ne peut pas le récupérer dans un site d'or. On va le récupérer par rapport à quoi ? Donc ces catégories de personnes effectivement c'est compliqué*

is a little broader than that...because like us in the census project what we consider household... is basically people who eat and live, as long as you eat and live together, that is a household. And it can be one person even or it can be more than one. You may not necessarily be related. Young statistician, UBOS, Uganda

in terms of what you actually have in the household there might be some cases of people who should belong to the same household in regard to the definition itself, actually do not live in the same household according to the definition that you use. They might be living in different households, completely different households. I was giving the example of an apartment building when.. the so called nuclear family, or a simple family is living in one address or one roof let's say and the mother in law or the mother, a single elderly person, might be living upstairs or just across the hall from the household, but when it comes to the sharing the amenities, the wealth, the expenditure, the health services in terms of eating together for instance, then the other elderly person might be actually belong to that household. (UN agency demographer, New York)

But the majority of these surveys they get the definition from [the statistical office] and they try to use it. Unfortunately what happens is, where the respondents have their own perceptions and also the enumerator they have their own perceptions. A lot of the data that we get in this part of the world is indicative of this question, it's not quite perfect information because of this confusion. So unless you have follow-up survey, small area survey you may not come up with very conclusive statements. It may be misleading. (UNFPA advisor, East Africa)

The lack of congruence with local language terms for domestic units and ambiguities over priorities of criteria for inclusion or exclusion all give interviewers considerable power over who is included and excluded and how different 'domestic groups' are split up into statistical households. In Uganda an interview with someone who had worked as a translator of demographic questionnaires highlights the dilemmas faced

R: It was synonymous with home, but they have their own definition of the household where if, if, if I can recall a bit. It ha, I don't know how clear I can put it. A household, a household, I think I don't have a clear definition, I don't have a clear definition. But...I think it was, it was something technical to them, and I couldn't, I can't really recall, but it was very much related to a home.

I: Ok you are saying it is related with a home, what are those words that are actually, how are you able to distinguish between a home and a household in the translation? Did you also keep it as one word?

R: Home and household? I think I kept it as one word. I kept it as one word

I: Ok

R: Because the problem is as much as they have their own technical definition of household, this...you, we, we, we, you can't have that, you know, it is not there, you know in the, in what... in in in Jopadhola and it is either you, the only word is there the only word which is there is a home and that is all.

I: So there isn't a word for household?

R: It is not there. Household is not there

...I: And when you were translating and you see these difficulties, as a translator do you go back to the people who asked you to do the translation and expl...and say 'oh, these are the words which you know gave some difficulties, there is no such thing'.

R: Yeah we get back to them...yeah... I personally highlight the difficulties and then I explain this to them. But sometimes they do very little, they have nothing to add. They just encourage you to use the nearest word.

Very similar problems were expressed in Burkina where the language with difficulties is Moore – the most widely spoken language in the country.

Household, there isn't a Moore term for that. Because it groups together different aspects, there is no Moore term which translates it. Even during all the different trainings we've had, as a function of what we want the household to be we give explanations. That doesn't mean to say that we don't understand Moore. We do the training in Moore. The questionnaire modules are done in Moore. It's just to say that there are different ways of understanding Moore. There are different Moorés. Here there are those who speak Yadga, there are several Moorés. You could count up to ten Moorés. It's the nature of the Mooré language like that. Even for Dioula people don't speak the same Dioula. So the words that you are trained to use here, when you go into the field you will meet people who don't understand those words. So it's up to you to explain to find the appropriate word.⁸ [experienced interviewers, Burkina]

These interviewers specifically articulate their own power and they place it at the individual level – situated within the interviewer's control and far removed from the standardised questions and concepts required by the survey designers

Similar issue were raised for Fulfulde whereas for a third Burkinabe language (Dioula) the problem is less acute.

Now for the household we say 'gwatigui' 'Gwatigui' is clear. Gwatigui directly translates the hearth, there where you cook. There where you cook is what we call gwa. When you say 'gwa tigui' the woman knows exactly who is her gwa tigui. So

⁸ *...Ménage, c'est ça il n'y a pas de...de...terme Mooré comme ça. Comme ça regroupe plusieurs éléments, il n'y a pas de terme Mooré qui traduise. Même pendant nos différentes formations en fonction de ce que nous on veut que le ménage soit, on donne des explications.... Ça ne veut pas dire que nous on ne comprend pas le Moore. La formation on le fait en Moore. Les modules on a fait ça en Moore. C'est pour dire que...on a ...on n'a pas la même façon de comprendre le Moore. Il y a plusieurs Moore. Ici il y'en a qui parle le Yadga, il y a plusieurs Moore. On peut dénombrer une dizaine de Moorés. Ça c'est la langue Moore même qui est comme ça. Même au niveau de Dioula, les gens ne parlent pas le même Dioula. Donc, les mots qu'on va te former ici tu pars sur le terrain tu va rencontrer certains qui ne comprennent pas ces mots. Donc c'est à toi maintenant de faire des explications, de trouver le mot adapté.*

*now you ask who are the people who make up their gwa. If you say gwa, the woman knows what you mean, it's already defined.*⁹ (experienced interviewers, Burkina)

A further linguistic issue arises in multi-lingual contexts. Interviewers are recruited on the basis of their interviewing skills and, where possible they are deployed to areas where they speak the language. However in the melting pot of cities experiencing in-migration from all over the country, interviewers often have to work in languages that they have only half mastered. This is explained very well by an experienced Burkinabe interviewer with a minority maternal language.

*There is Mooré. You can arrive in the field, us, those who are not Mossi, who don't speak Mooré very well, in the training everything that they tell us we throw it up in the field. And when you throw it up the person opposite you doesn't understand what you are saying. So you, if you don't understand the language well you can't explain it so that he understands.*¹⁰

Persuading people to reply

Once decisions have been made to include or exclude certain households the next stage is persuading the respondent to participate (willingly and honestly) in the survey. This is where the personal skills of the interviewer are very important but power relations come into play: in some cases rural illiterate farmers may feel so intimidated by the well dressed, well educated interviewer that they do not feel they can refuse to participate but they may well demonstrate resistance by providing inaccurate replies. In other cases the interviewer has to use considerable persuasion to get people to participate and often this takes the form of explaining the potential importance of the survey for future provision of services. This can backfire for future surveys if nothing changes: thus the interviewer – through his or her exchanges can generate problems for future work

There is the non responses problem. But then there were some unnecessary call backs due to two reasons. One was the interviewer himself or herself having leading excuses from the head of households but some of them was due to maybe improper understanding of the importance of the survey to the respondents. Some of them. Maybe if the interviewer was not able to explain vividly, 'The main aim of this is... and the time scheduled for the project...' so then you can agree and it is easy, not even insisting that potential time and whatever. But others was...the problem was if you happen to be in the same area that has done some other surveys social or

⁹ *Maintenant, pour le ménage on dit 'gwatigui'. Maintenant gwatigui c'est clair. Gwa tiguï traduit directement le foyer. Là ou on prépare. Là où on prépare le tô c'est ce qu'on appelle gwa. Quand tu dis gwa tiguï la femme sait directement qui est son gwa tiguï. Voilà, tu demandes maintenant qui, quels sont les éléments qui constituent leur gwa. Si tu dis gwa la femme sait l'environnement, c'est déjà cadré.*

¹⁰ *il y a le Moore, tu peux arriver sur le terrain, nous autres qui ne sont pas Mossi, qui ne parlent pas très bien Moore, à la formation ce qu'on nous a dit, on vomit ça sur le terrain. Et quand tu vomis ça celui qui est en face de toi ne comprend pas. Donc toi, si toi aussi tu ne comprends pas bien la langue tu ne peux pas alléger ça pour qu'il comprenne*

whatever. They say 'you come last year and now you ask the same questions and now I don't have time'. Former survey supervisor, NBS Tanzania

The interviewers have to return at the end of the day having undertaken the interviews they were given. They have to find a variety of strategies in order to persuade reluctant people to reply, but these strategies themselves may incite the reluctant person to alter their replies. By persuading someone that it is in their interests to reply, the interviewer is also suggesting to the respondent the sort of answer that might lead to desired changes.

I So what do you say to them to persuade them? To change their minds?

R Just tell them you know this Tanzania, Do you have hospitals around? Do you have markets around? So how don't you answer me my questions, how don't you listen me what I am saying? But then people say "You know this government they send people to ask questions but they don't nani build the nearest [a nearby] hospital, they don't make me close..." You know... [laughs]

I So people are very concerned that why should they spend time answering your questions when they don't see results

R Yeah yeah (DHS interviewer East Africa)

So when the interviewer says ¹¹ *“collecting data...you, you ask questions. You rely on what the respondent says but if it doesn't fit with what you want then you ask the question again”* or when he says *“women, sometimes they don't tell the truth. We know because the questions are often linked. You can ask a question like that and the woman says 'no'. But then in subsequent questions you realise that at the beginning she wasn't telling the truth. So you have to return to make her understand that no, here she said this whereas here that's not the case.”* we begin to understand the different techniques the interviewer develops to pull the truth out of the respondent's mouth, and we appreciate the interviewers' skill and their desires to do to their work well. However this conscientiousness also demonstrates the power the interviewer has over the respondent and his capacity to make respondents say things that they hadn't thought about or possibly don't even want to say, but they feel compelled to do so because the interviewer is pushing them. Part of this is because often, especially in rural or poor, largely illiterate neighbourhoods, the interviewer appears to the respondent to be an incarnation of knowledge itself – and ironically often this knowledge is a knowledge instilled in the interviewers by training around the survey definitions.

Good conscientious enumerators often have to make difficult decisions in the field

¹¹ *« La collecte des données...toi tu poses des questions. On se fie à ce que le répondant dit maintenant si ça ne cadre pas avec ce que toi tu veux tu reposes la question... »,
« les femmes de fois, elles ne disent pas la vérité. On sait, puisque les questions sont un peu liées. Tu peux poser une question comme ça, et la femme te dit « non ». Alors qu'il y a les questions qui succèdent, tu te rends compte que au début là, elle n'a pas dit la vérité. Donc, il faut revenir pour lui faire comprendre que non, ici, elle a dit comme ça, alors qu'ici là, c'est pas ça»,*

- I: *But what happens when you get people who maybe live together and don't eat together. How do you make a decision? Because you've got this definition that people who live together and have a sort of common economy and they eat together. But sometimes it maybe that they don't eat together. Do you treat them as separate households, or do you keep them together. They live under one roof, but they eat in...*
- R: *You see, you just decide on how they contribute to the certain ... of life.*
- I: *But you make that decision, you as the interviewer?*
- R: *Of course, you just decide upon the act of contribution to access of life. So why is that coming.*
- I: *You're making a decision.*
- R: *Yeah yeah yeah, depending on, the dependence of which other family member.
(Experienced Tanzanian interviewers)*

Once they have decided who is in and who is excluded from the household, interviewers have to find a multitude of ways of convincing people to tell the something approaching the truth – although one must recognise that it may be very difficult to actually judge whether there IS an objective truth. In the case below although the man may well have underestimated the first time, it is also perfectly likely that he overestimated the second

I they underestimate their wealth?

R they reduce it. In the beginning I interviewed a man and I could tell he wasn't telling the truth. As we are in the household we can observe. You say "but that belongs to whom?" He says "ah it's mine, it's my brother's, it doesn't belong to me". I say 'OK, this value here, they use it, perhaps the state is going to use that to help you. Perhaps it will happen that they say "ah the people haven't got enough resources to look after their herds properly". They could subsidise vaccination, or provide free animal care or possibly bring in drugs. But if you say to me that you have 15 and afterwards it's recorded that you have 15, then perhaps 15 pills will be enough, whereas in fact you have 100, the rest of them, 100 minus the 15, it's you who will have to pay". So he says to me "ah, wait, wait, wait" He gives you the numbers.

¹² (interviewer on DHS and other surveys, West Africa)

Different interviewers have different capacities to be able to identify lies or distortions of the truth partly because of their own personal characteristics and abilities to read respondents. These skills are often related to the interviewer's linguistic skills and ethnic affiliations and may well vary from one context to another.

¹² *I ils sous estiment leurs richesses ?*

R ils diminuent. Au début, j'ai enquêté un homme, je voyais qu'il ne disait pas la vérité. Mais comme on est dans le ménage, on voit. On dit « mais, ça c'est pour qui ? » il dit « bon, c'est pour moi, c'est pour mon frère, ça ne m'appartient pas... ». Je dis ok, « cette valeur là, ce qu'on utilise, peut-être l'Etat va utiliser ça souvent pour vous aider. Peut-être il peut arriver qu'on dise « les gens, les populations n'ont pas assez de moyens pour s'occuper de leurs troupeaux. Ils peuvent subventionner ou la vaccination, ou bien l'entretien de l'animal gratuit, ou bien amener des produits. Mais si tu me dis que tu as 15 et après on estime que toi tu as 15, peut être 15 comprimés peuvent te suffire alors que tu as une centaine, le reste là maintenant, 15 moins les 100, c'est toi qui va payer ». Donc, il me dit « ah !!! attends ! attends ! attends ! » Il te donne les chiffres.

the first best solution would be that if you want interview Sukuma households you would use a Sukuma person. Well,, but that depends on the skill the competence of that person. I'm a Chagga. If we go to Chagga land it would be quite easy to carry out the interviews because if they cheat me I will know what this is cheating. And if they want to correct that I would not use Swahili I will use Chagga and even if it is my father I will tell and then he will say "yeah yeah I am cheating" and he will have to reply because it is quite easy . but if I am a Maasai and I am interviewing a Sukuma in Swahili but if they cheat you will not be able to know that (Head of private research consultancy, Tanzania)

Sometimes the interviewer may be deprived of the power to actually represent the response or situation of the respondent. This arises out of the fact that interviewers have to submit complete questionnaires – gaps and blanks suggest that they are not doing their job properly. In all the study countries there are high levels of unemployment amongst educated young people and few interviewers would be prepared to put their employment on the line because a respondent cannot or will not provide an adequate answer that fits in with the pre-ordained acceptable range of answers. Many mentioned the pressures to produce the right number of complete forms for the supervisor at the end of the day.

We discussed the concept of ideal family size with interviewers who had worked on the DHS. Although in earlier DHS the reply 'up to god' or a non numeric reply was allowed, this is no longer acceptable and thus more power has been handed to the interviewers because they have to persuade the respondent to give a numeric answer. It is not just that the perspicacious interviewer identifies that a respondent may be lying, but the respondent may not actually have an answer for the interviewer. Nevertheless interviewers will do all they can to get an answer that is within the range of acceptable answers for that question and that survey. Yet at the same time they may be fully aware that this answer does not really represent a deep felt conviction and so they may attempt to try and lead the person to provide what they see as a more reasonable response.

I the question on...if you could choose the number of children, what's the reaction of the women?

R Ah ! I encountered a woman, I asked her the question, she said to me, no, that she doesn't know, that it's God who decides. That if she, she says that (a number) and God then gives her more or less than what she said – so she can't say. She says that it's God who gives. So now I say to her "but if God asks you the question what will you say?" That in that case she would choose 20. I say, "those 20, how will you feed them? These days with the life that we have how will you feed them?" I had understood that she wanted to just get rid of the question. She says " that's true" and she changes – she came down to 8, 4 boys and 4 girls.

I So it was you who guided her a bit?

R Yes, but you often sense that the answers that people give it's not what they really want to say.¹³ (West Africa, DHS interviewer)

¹³ *I....la question sur le... si vous pouviez choisir le nombre d'enfants, c'était quoi la réaction chez les femmes ?*

In this case the fact that the interviewers themselves are well-educated, well-informed and are likely to have quite small ideal family sizes means that where there is room for interpretation and manoeuvre they are quite likely to push the respondent and influence the outcome in a way that demonstrates their own opinions about the reply. Where a respondent is uncertain or ambivalent they are likely to give an answer which the interviewer finds acceptable. This demonstrates a key element of power of the interviewer: the interviewers' own personal characteristics, age, gender, ethnicity, marital status will give them degrees of power, or powerlessness over respondents. Education may be the strongest of these, since, by definition interviewers are well educated, and many of their respondents in rural areas are not. Where education is respected, and where concepts may be alien, such as in the case above, the educated woman can easily impose her own values on the answer.

However it is also recognised that the whole data collection process is not gender neutral. In many data collection exercises (although not the DHS) there is a clear bias towards men both in terms of data collection and the respondents

- I. Male-biased in terms of the way the questions are asked? [surveys in Tanzania]*
- R And in the way it's administered and who's administering it. And generally overall I think there are not enough female enumerators, but it's not surprising, because I don't think that being a female enumerator in rural Tanzania, would be an easy thing to do at all.but I think, I think the DHS does quite a gallant job at for example capturing sexual behaviour and fertility patterns and all the rest of it, which are very sensitive....I think young women in some of the household surveys are poorly captured, labour force survey I think poorly captures the most frankly..*
- I But do you think it doesn't actually include the women in the sample, or it just represents their labour very badly?*
- R ... Erm ... it's not in general, in general they do not interview the young women themselves, people speak on their behalf, and I think that is one of the biggest problems in the way that the enumeration is done, that the head of household is often interviewed on behalf of the other members of the household, and it's a standard problem (International advisor, Tanzania)*

The power of the interviewer in such contexts lies in the extent to which they search out different respondents when they do not have to (in the DHS they do have to) to canvass their own opinions and more accurate data.

R : bon ! j'ai croisé une femme là, je lui ai posé la question, elle me dit que non, qu'elle ne sait pas, que c'est Dieu qui décide. Que par exemple si elle, elle dit comme ça (nombre) et Dieu lui donne comme ça (plus ou moins que ce qu'elle a dit), donc, elle ne peut pas dire. Elle dit que c'est Dieu qui donne. Maintenant je lui dis que si c'est Dieu qui vous pose la question, vous allez répondre quoi ? Que dans ce cas, elle, elle choisit 20. Je dis 20 là, vous allez les nourrir comment ? De nos jours, avec la vie qu'on a maintenant, tu vas les nourrir comment ? ». Bon, j'ai compris qu'elle voulait s'en débarrasser quoi, de la question. Elle dit « han, c'est vrai hein ! » elle a changé, elle est venue à 8, quatre garçons, quatre filles.

I : mais c'est vous qui les avez un peu orienté ?

R. oui, puisque tu sens souvent que les réponses que les gens donnent, c'est pas ce qu'elle veut dire au juste.

Conclusions

Interviewers in African surveys have to do a very difficult job. They have to negotiate entering people's private lives in ways that may be very alien to local cultures. They have to apply and adapt definitions to complex contexts either for which criteria have not been developed, or where criteria are contradictory and where even the examples given may confuse the situation further. Furthermore they are often caught between two different value systems: their professional position which requires them to ask questions in a specific way, often on subjects which are rarely spoken about openly and where power relations between interviewee and interviewer may influence acceptable responses in different ways.

We need to realise that although the interviewer is usually the least well qualified link right at the end of the chain of data production s/he also needs to be seen as the master of their domain because s/he is the critical contact with the population who are providing the data. We must not lose sight of the immense power of the interviewer's over the quality of the raw data, and thus the analyses and any subsequent policy decisions.

Interviewers themselves are often very articulate about their power and the decisions they make, although whether, even within a country, these decisions are consistent between interviewers is more in doubt. Data users however, who have never actually worked as interviewer often admit that they don't question how the data have come into being – they just use the definition (some are not even aware of the definition and just make assumptions)

I swear that for me, the household I take it and....the definition given by the country. So when I analysed data from a survey in Guinea, as I am doing at the moment for Burkina, at the beginning of the document they always define what they call the household and I work with this without ever questioning it. What I have noticed is that generally they define the household as those who eat together...because I see that family is the biological links and all that, household, most definitions that I see the meal together is the factor – mainly economic in fact. I have never asked myself more than that. World Bank Analyst

This paper has identified a range of contexts where there is clear recognition both of the interviewers' power but also of quite serious contradictions and biases. There are other situations, such as the problems around ideal family size, where in a quest to have an answer it is possible that insufficient attention is paid to the means of obtaining this answer and therefore the value of the data. If such approaches of well educated interviewers are widespread – something that remains to be studied, this might explain some of the apparent anomalies in West Africa with apparently high levels of unmet need and substantial inconsistencies between fertility preferences and contraceptive behaviour.

References

- Becker, S., Feyistan, K., and Makinwa-Adebusoye, P. (1995). The Effect of Sex of Interviewers on the Quality of Data in a Nigerian Family Planning Questionnaire. *Studies in Family Planning* 26(4): 233-40. [[doi:10.2307/2137848](https://doi.org/10.2307/2137848)]
- Benstead, L. J. (2010) Effects of Interviewer Gender and Religious Dress on Survey Responses: Findings from a Nationally-Representative Field Experiment in Morocco Presented at the 27th Annual Summer Meeting of the Society for Political Methodology University of Iowa July 22, 2010
- Bignami-van Assche, Simona, Georges Reniers, and Alexander A. Weinreb. 2003. "An Assessment of the KDICP and MDICP Data Quality: Interviewer Effects, Question Reliability and Sample Attrition." *Demographic Research* SC1:31–75
- Blanc, A. K. and Croft, T. N. (1992). *The Effect of the Sex of Interviewer on Responses in Fertility Surveys: The Case of Ghana*. Paper presented at the annual meeting of the Population Association of America, Denver, Colorado, April 30-May 1, 1992.
- Blom, A. G., E. D. de Leeuw & J. J. Hox 2011 Interviewer effects on nonresponse in the European social survey *Journal of Official Statistics* 27(2):359-377
- Burkina Faso (2009) *Concepts, définitions, indicateurs, méthodologies et nomenclatures utilisés dans le Système statistique national*. Ministère de l'économie et finances, INSD, Ouagadougou.
- Campanelli, P. P. Sturtgis & S. Purdon (1997) Can you hear me knocking? An investigation in the impact of interviewers on survey response rates. London : SCPR
- Couper, M. P. & R. M. Grove (1992) The role of the interviewer in survey participation. *Survey Methodology* 18(2):263-278
- Davis, R. E., M. P. Couper, N. K. Janz, C. H. Caldwell & K. Resnicow (2010) "Interviewer effects in public health surveys *Health Educ. Res.* (2010) 25 (1): 14-26.
- De Leeuw, E. D. & J. J., Hox (2009) International Interviewer Questionnaire (IQUEST) Development and Scale Properties. Dept of Methodology and Statistics, Utrecht Uni. Pp.31
- Flores-Macias, F. (02/2008). "Effects of Interviewer Gender on Survey Responses: Findings from a Household Survey in Mexico". *International journal of public opinion research* (0954-2892), 20 (1), p. 100.
- Groves, R. M. & M. P. Couper (1998) *Nonresponse in household interview surveys*. Wiley, New York
- Levinson, S.(2008) 'La place et l'expérience des enquêteurs dans une enquête sensible' in Bajos N. and Bozon, M. *Enquête sur la Sexualité en France: Pratiques, Genre et Santé*. Paris, Editions La Découverte

- O'Muircheartaigh C, Campanelli P. The relative impact of interviewer effects and sample design on survey precision. *Journal Royal Stat Society Series A* 1998; **161**: 63–77.
- Pilon M. & K.Vignikin (2006) *Ménages et Familles en Afrique subsaharienne*. Editions des archives contemporaines, Paris.
- Powell MB, Cavezza Cristina, Hughes Scholes Carolyn, Stoope Mark (2010) Examination of the consistency of interviewer performance across three distinct interview contexts *Psychology crime and law*, 585-600
- Randall Sara, E.Coast, T.Leone (2011) Cultural constructions of a critical demographic concept: the survey household *Population Studies*, 65(2) 217-229
- Schor Paul (2009) *Compter et Classer: histoire des recensements américains* EHESS, Paris.
- Skinner CJ.1989 Introduction to part A. In: Skinner CJ, Holt D, Smith TMF, eds. *Analysis of complex surveys*. Chichester: Wiley,
- Tanzania NBS Harmonised concepts and definitions
- Uganda Bureau of Statistics (UBOS) (2006). Compendium of statistical concepts and definitions used in the Uganda Statistical system and services.
- Verrall, J. (1987). Recruitment of field staff, pretesting and training. In: Cleland, J. and Scott, C. (eds.). *World Fertility Survey: An Assessment*. Oxford: Oxford University Press.
- Weinreb, A. A. (2006). The Limitations of Stranger-Interviewers in Rural Kenya. *American Sociological Review* 71(4): 1014-1039.
- Weinreb Alexander, Sano Mariano (2009) The Effects of Questionnaire Translation on Demographic Data and Analysis *Population Research and Policy Review* 28(4)