Measuring Generalised Trust in Sub Saharan Africa: A Critical Note

Moletsane Monyake

MNYMOL006

A minor dissertation submitted in partial fulfilment of the requirements for the degree of Master of Social Science in Political Science

Political Studies Department, Faculty of Humanities, University of Cape Town

11 September 2012

COMPULSORY DECLARATION
This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced.

Signature:_____ Date:_____

Acknowledgements

I owe my gratitude firstly to my personal Lord and Saviour Jesus Christ, who has done and continues to do immeasurably more than all I ever imagined. Secondly, I certainly wouldn't have completed this work without the help of my supervisor Professor Robert Mattes. I am grateful to Bob for having me as part of his research team at the Democracy in Africa Research Unit (DARU). I am also grateful to DARU-ALP project manager Liz Welsh and all DARU Researchers for supporting me in various ways throughout this project. Carlos Shenga, Michelle Romo, Samantha Richmond, Kevin O'nell and Dustin Kramer read and discussed with me the earlier versions of this dissertation.

'Mabataung Monyake, as one writer said "'*Many women do noble things, but you excel them all.*" Your faith in me when I couldn't believe in myself is enormously appreciated…! Tiisetso Khalane, "a friend in need, is a friend in deed"; I'm grateful for the many ways in which you have helped me during the last six months of my stay in Cape Town, especially for allowing me to live in your flat free of charge. My God shall supply all your needs according to His riches in glory. *Le ka moso Phuthi!!*

Table of Contents

List of Tables and Figures

Abstract

"*Generally speaking, would you say most people can be trusted or that one must be careful in dealing with others?"* For the past 50 years this question has been used extensively and almost exclusively as a measure of generalised trust in both national and cross-national studies. However, it was not until very recently that scholars focused on the question's validity and reliability as a measure of generalised trust. Besides that these studies' findings are largely contradictory, few of them examine the validity and reliability of the trust data in the African context. This study is motivated by this research gap and the fact that the levels of trust from the Afrobarometer surveys seem to challenge what the literature suggests about the causes and consequences of trust. The study finds that the question is a reliable measure of trust in 'most people' since it obtains largely similar country level estimates when used alone over a period of time. However, African respondents do not consistently interpret 'most people' as 'non-co-ethnics' as previous studies have suggested. In addition, the question does not alternate very well with other measures of bridging trust. This measure is also weakly correlated with measures of civic engagement and associational membership than its alternative, the trust in non-co-ethnics question. However, both measures produce expected linkages with measures of ethnic diversity, economic development and democracy.

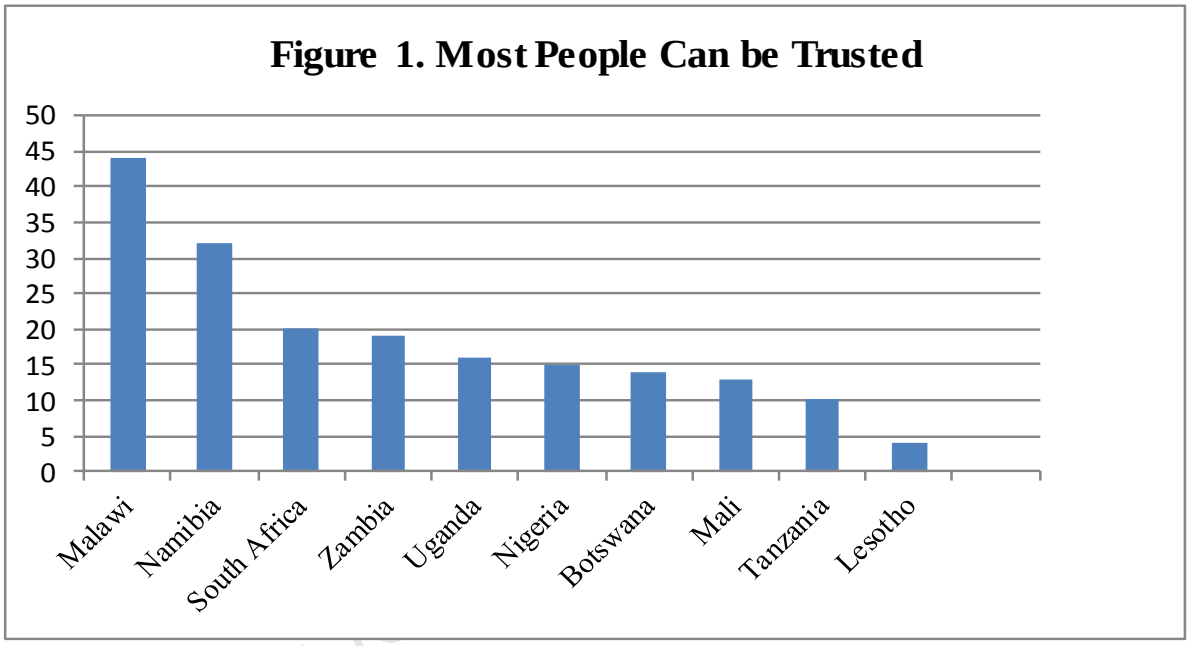
Chapter 1

Statement of the Problem

The notion of social capital includes social networks and the norms of reciprocity and trustworthiness that enable society to achieve common objectives (Coleman, 1990, Putnam 1993, 2007). Many scholars agree that social capital is a necessary condition for social, political and economic development and argue that trust or trustworthiness are key drivers in this regard (see, Norris 2002, Newton 2001, Rothstein and Stolle 2002). In fact, the steady and somewhat exclusive focus on trust in the current social capital research suggests that it is indeed an important measure of social capital (Soroka, Helliwell and Johnston 2007). The literature shows that levels of trust tend to be higher in ethnically homogenous, wealthy, democratic and egalitarian societies (Fukuyama 2005, Delhey and Newton 2005, Norris 2002, Zak and Knack 2001, Morrone 2009, Inglehart 1988, Guiso 2010, Beugelsdijk et al. 2004). But the (admittedly patchy) social capital literature on levels of trust in sub Saharan Africa seems to contradict this finding.

In their seminal '*Public Opinion, Democracy and Market Reform in Africa'*, Bratton, Mattes and Gyimah-Boadi (2005) reported cross-national trust estimates that seem to contradict what the literature says regarding the relationship between trust, ethnic diversity, democracy and national wealth. Using Afrobarometer (AB) Round 1 data, the authors measured each country's level of trust as the percentage of respondents who answered positively the following standard trust question: "*Generally speaking, would you say that most people can be trusted or that you must be very careful in dealing with people?* They found that Lesotho, the most ethno-linguistically homogenous country in the group of countries they studied, registered the lowest level of trust as only 4% of the respondents

answered the question affirmatively. In another presumably homogenous country, Botswana, as little as 14% of the respondents agreed that most people could be trusted. As shown in **Figure 1**, the question obtained relatively high levels of trust in ethno-linguistically heterogeneous countries as 44% of Malawians, 32% of Namibians and 20% of South Africans maintained trust in most people (Bratton et al 2005).



Source: Bratton, Mattes and Gyimah-Boadi (2005:194)

Given the positive relationship between trust and ethnic homogeneity found elsewhere in the world, the low level of trust in Lesotho - where 99.7% of the population is ethnic Basotho - is rather surprising. Perhaps the positive impact of this cultural homogeneity on Lesotho's stock of social capital was overshadowed by the country's relatively unstable democracy and low levels of economic development. However, relatively low level of trust in Botswana defies

this logic. In addition to its relative cultural homogeneity[1], Botswana is one of the most democratic and wealthiest African countries. Between 1970 and 2006, Botswana was among the fastest growing economies in the world (Holm 2000). In addition to being one of the oldest democracies in the region, the government of Botswana is the cleanest in Africa according to Corruption Perception Index (2000-2010).

Table 1 shows the levels of ethnic homogeneity (measured by Posner's Politically Relevant Ethnic Group [PREG] index[i]), levels of economic development around the time in which the AB surveys were conducted (measured by Gross Domestic Product [GDP] per capita) and the state of democracy (measured by the Freedom House [FH] Scale) during the same period, for the 11 countries from which AB obtained data on generalised social trust.

Table 1: Ethnic Diversity, Economic Development, Democracy and Generalised Trust in Eleven African Countries

Country	PREG Rating	GDP/Capita in USD (2001[2])	FH Scale (2000-01)	Most People can be Trusted
Lesotho	0	345	Partly Free	4
Botswana	0	3381	Free	14
South Africa	.49	2638	Free	20
Malawi	.55	149	Partly Free	44
Namibia	.55	1832	Free	32
Zambia	.71	348	Partly Free	19
Uganda	.63	234	Partly Free	16
Nigeria	.66	379	Partly Free	15
Mali	.13	226	Free	13
Zimbabwe	.41	538	Not Free	13

[1] Posner's ethnic fractionalization index considers 'Politically Relevant Ethnic Groups'. This measure qualifies Botswana as ethnically homogenous. Further, other ethnic fractionalization indexes show that compared to other countries in the Round 1 data, Botswana is second to Lesotho in terms of ethnic homogeneity.

[2] http://data.worldbank.org/indicator/NY.GDP.PCAP.CD

Tanzania	.59	305	Partly Free	10

Looking at **Table 1**, it is surprising that Malawi's proportion of trusting people was more than twice that of South Africa, even though South Africa was more democratic, more economically developed and less ethnically diverse than Malawi. Indeed, these results appear to contradict what the literature claims about the national-level causes and consequences of generalised trust and social capital.

Possible Explanations, Research Purpose and Question(s)

The foregoing suggests two possibilities. The first one is that contrary to what the literature indicates, the linkages between social capital and ethnic homogeneity, democracy and economic development operate very differently in the African context than they do elsewhere. The second possibility is that while these linkages really do exist, the way in which generalised trust was measured yielded invalid and unreliable data about its levels in the African continent. This study focuses on the second possibility. Thus the main question the study poses is as follows: Are the data used to establish levels of trust in sub Saharan African countries valid and reliable? Probing further, the study inquires whether alternative generalised trust questions produce significantly different levels of trust and whether those data do a better job in reproducing the expected linkages with economic development, democracy and ethnic homogeneity.

Significance

Why should this study focus on validity and reliability of generalised trust measures rather than assessing the relationship between trust, ethnic composition, democracy and economic growth? Firstly, no one has as yet examined the validity and reliability of the trust measures in the African context. Secondly, and most importantly, it is logical to attain confidence in the

measures before testing hypotheses. Campbell and Fiske (1959:100) "believe that before one can test the relationships between a specific trait and other traits, one must have some confidence in one's measures of that trait". For King and colleagues "Achieving the theoretical and causal goals of our field and all other empirical fields would seem to be virtually impossible unless variables can be measured adequately" (2004:191). Further to these and most importantly for this study, there seems to be a growing debate concerning the validity and reliability of the measures of generalised trust. Thus, Deepa Narayan and Michael Cassidy concluded that "A worthwhile contribution to the growing body of social capital literature… is one that advances the reliability and validity of its measures" (2001:61).

Chapter 2
Review of the Literature

Interpersonal Trust and Social Capital: An Overview

Interpersonal trust is an elusive and highly contested concept in the social science literature (Newton 2001, Beugelsdijk 2006, Nennastead 2009). Various scholars note that this is partly because, while scholars have an idea of what it means to trust, they differ on the universe of things that constitute the act of trusting (Newton 2001, Harris 2003 and Hart 1988). As Patrick Sturgis and Patten Smith (2010:75) point out "…the difficulty inherent in capturing the ontological status of the trust construct, is that trust comes in many forms, and with a variety of nuanced meanings, in both lay and academic discourses". Notwithstanding, scholars concur that trust arises when there is a possibility of being cheated (Coleman 1990, Dasgupta 1988, Gambetta 1988, Mayer, Davis, and Schoorman, 1995; Mayer 1995). That is, trust becomes relevant when we are not sure that others will protect our interests. Trust is therefore a belief or expectation that an individual will avoid taking advantage of the holder of the belief, irrespective of the belief-holder's ability to monitor his actions (see Dasgupta 1988, Mayer, 1995, Delhey and Newton 2005).

Social capital literature makes a distinction between two forms of interpersonal trust: **bonding or particularised** trust and **bridging, social or generalised** trust. Bonding trust occurs within a circle of acquaintances such as family members, relatives, friends, close neighbours, co-workers and others with a background similar to the truster's (Putnam 2000, Bahry et al, 2005). On the contrary, as Marshall and Stolle (2004) explain, trust is generalised when it transcends this circle of personal relationships. Generalised trust is faith in people we

do not know at the personal level including those who are culturally different from us such as members of other racial, ethnic and religious groups.

Georg Simmel (1950) observed that generalised trust provides a kind of all-purpose glue that holds society together enabling it to achieve common objectives. Likewise, Putnam (1993), and Rothstein and Stolle (2002) agree that generally trusting citizens can easily pool resources because they believe that others have a moral imperative to not abuse collectively owned resources. For Inglehart (1997), a society in which this belief is strong and wide-spread will easily solve many collective-action problems such as free-riding. Generalised trust is the foundation of social order, tolerance and public-spiritedness. It makes it easy for voluntary organisations to form across diverse constituencies. Generalised trust lubricates political participation or civic engagement which contributes to the general vibrancy of democracy (Putnam 1993, Warren 1999). .

As Kenneth Arrow has noted, "virtually every commercial transaction has within itself an element of trust ...It can be plausibly argued that much of the economic backwardness in the world can be explained by the lack of mutual confidence" (1972:357). A climate of trust and mutual confidence encourage banks to adopt policies that facilitate easy access to loans thereby boosting investment. It is generalised trust that "can dramatically reduce what economists call transaction costs - costs of negotiation, enforcement, and the like - and make possible certain efficient forms of economic organization that otherwise would be encumbered by extensive rules, contracts, litigation, and bureaucracy" (Fukuyama 2005:90).

Since measurement issues - on which the study focuses - have their roots in conceptual traditions, it is imperative to begin with an overview of how scholars have come to understand generalised trust especially its origins and consequences. Indeed, as the following

sections illustrate, the scholarly tension regarding the validity of dominant measures of generalised trust carries strong theoretical overtones.

Theoretical Perspectives on the Origins of Generalised Trust

> I sometimes feel that we are discussing concepts that are semantically similar but interpreted in different ways. However, as I hope to have made clear, it is also more than just semantics. We also differ in terms of theoretical position, which I think is important to recognise. A theoretical debate on the … nature of trust is badly needed. (Beugelsdijk 2008:638).

This quote captures the nucleus of an interesting exchange between Eric Uslaner (2008) and Sjoerd Beugelsdijk (2006, 2008) in the *Oxford Journal of Economics* concerning the validity of the survey measures of generalised trust. In that exchange, both scholars admitted that their disagreements regarding the validity of the question - *whether or not most people can be trusted* (the standard trust question) - were more theoretical than empirical. That is, the key contention was not how data were collected and analysed but how the results were interpreted. Beugelsdijk argues for instance that responses to this question *should be interpreted* as a proxy for the well-functioning of institutions while Uslaner strongly maintains that these indicate people's moral disposition to regard others as trustworthy regardless of their perception of current social and political institutions.

As the foregoing indicates, generalised trust scholarship as it relates to measurements is pitted into two theoretical orientations: experience-based and moralist-cultural perspectives (Soroka, Helliwell and Johnson 2006, Nannestead 2008, Lolle and Toppe 2010). Rothstein and Stolle (2002) refer to these as society-centred (moralist) and institution-centred (experience-based) approaches while Pamela Paxton and Jennifer Glanville (2007) call them

Psychological Predisposition and Social Learning traditions. For consistency, I shall stick to experienced-based and moralist-cultural terms.

Experience-based Perspectives

Informed by rationalist, institutionalist and social learning theories, the 'experiential' conception of trust argues that trusting attitudes are informed by a natural tendency to minimise risk (Coleman, 1990, Rothstein 2005, Rothstein and Stolle 2002, Newton 2001). As processors of limited information, people rely on experiences and various other information shortcuts to minimise the risk associated with social interaction and co-operation. Trust is not a stable cultural phenomenon because individuals constantly update their information about the trustworthiness of an average person. In this connection, Kenneth Newton (2001:203) found that generalised "trust seems to be less of an expression of an internal and unvarying personality trait, than a response of individuals to the changing external world around them". Glanville and Paxton (2007:240) added that "Trust can be affected by changes in the social environment and is not determined wholly by past socialization or innate characteristics. Ongoing experiences in adulthood shape trust". According to Soroka, Helliwell and Johnson (2007) membership in formal organisations, the *experience* of crime and ethnic diversity inform generally trusting attitudes.

Further to that, proponents of the experience-based approach argue that generalised trust is "heavily influenced by (the effects of)[3] government institutions and policies" (Rothstein and Stolle, 2002). In fact Mishler and Rose (2005:5) observed that generalised trust "is a rational response to institutional performance". As such political institutions

[3] Parenthesis original

"create, channel and influence the amount and type of social capital" (Rothstein and Stolle 2002:7).

Most importantly for the purpose of this study, the proponents of experience-based conception argue that answers to the standard trust question reflect, among other things, people's views about current social and political events and institutions. As Beugelsdijk (2006) argued, these answers indicate people's confidence or lack in the state agencies to discourage opportunistic behaviour. For Newton (2001:203), these responses "tell us not about the disposition of people to be trusters or distrusters but about how they evaluate the trustworthiness of the world they live in". Delhey and Newton (2005:97) add that trust scores "tell us more about societies and social systems, than about the personality types living in them".

Likewise, Putnam argued that "when people tell pollsters that most people can't be trusted, they are not hallucinating - *they are merely reporting their experiences*" [4] (2000:138). In their widely cited experimental study, Edward Glaeser and colleagues (2000) found that the standard trust question does not measure personality-based propensity to trust but *perceived trustworthiness* of the society (Glaeser et al 2000). Consequently, the authors suggested that social capital literature relying on the standard trust question "needs to be somewhat reinterpreted" (Glaeser et al 2000:841). In essence then, the thrust of the experiential conception of trust is that the belief that anonymous others can be trusted depends largely on the behaviour of others.

Culturalist- Moralist Perspective

[4] Emphasis mine

Contrary to the foregoing, the culturalist- moralist conception maintains that generalised trust depends neither on cues of trustworthiness nor on any amount of recent or adult life experiences. Generalised trust is a moral presumption that the world is generally a good place; that people have an inherent desire to be good to others and that they strive to behave accordingly. In essence, generalised trust is a personality-driven positive outlook about human nature (Uslaner 2002). Following the likes of Harry Eckstein (1988:791) who argued that "early learning conditions later learning and is harder to undo", Eric Uslaner (2002, 2008) argued that dispositions of generalised trust are determined during the formative years. As a result, variations in generalised trust levels have very little to do with rationalist calculations based on current experiences.

In his article 'Where You Stand Depends on Where your Parents Stood', Uslaner (2008) demonstrates that trusting dispositions can be traced back to the respondents' country of origin. Using the General Social Survey (GSS) data covering a period between 1972 and 1998, he found that despite growing up in some of the high trust neighbourhoods in the United States, descendants of the immigrants from less trusting countries remained comparatively suspicious of others. On the contrary, those whose parents came from high trusting countries like Denmark, Finland and Norway maintained higher levels of generalised trust, even when they resided in low trusting communities of the United State. In the publication titled, 'Inherited Trust and Growth', Algan and Cahuc (2009) corroborate Uslaner's findings using the data that includes three more waves of the GSS surveys. These results indicate, contrary to the experiential perspective, that generalised trust is a cultural attribute or a personality-trait that remains relatively stable over a long period of time.

Further to that, Uslaner (2001, 2008,) and Algan and Cahuc (2009) maintain that the standard trust question measures respondents' trusting dispositions or *trustfulness* as opposed

to perceived trustworthiness of the society as a whole. They show that people of Danish and Norwegian origin - being the trusting personalities - tend to express similar levels of trust regardless of which part of the world they currently live in when they answer the standard trust question. Similarly, Guiso et al (2010), using the European Social Survey (ESS) data found that Danes and Norwegians do not only trust their own *trustworthy* fellow citizens but register comparatively higher levels of trust in people from low trusting countries. On the contrary, people from low trusting countries register low levels of trust in both their fellow citizens and those of high trusting countries (Guiso et al 2010). Culturalist-moralist scholars emphasise that when responding to the standard trust question, people draw from their own personalities rather than from their most recent experiences (Bjørnskov 2006). Indeed, generalized trust is stable over time because it has deep socio-psychological roots "and does not shift with each new experience" (Uslaner 2008:739).

Are these Perspectives Mutually Exclusive?

At face value, the two conceptions seem to be diametrically opposed. However, they are to a large degree complementary. Generalised trust is a multi-dimensional and multilevel phenomenon which is influenced by cultural and institutional factors and has both individual and aggregate level foundations. At one extreme generalised trust seems to be driven by class, ethnic composition, urbanisation and institutional performance (Coleman 1990, Delhey and Newton 2005 Putnam 2000, Smith 2010). On the other extreme it is seems to vary with individual's sense of control, perceptions of well-being, optiminism and satisfaction with life (Rothstein and Wang 2011, Uslaner, 2002). In the article titled 'Measuring and Modeling Interpersonal Trust', Soroka, Helliwell and Johnson (2007) provide a very useful analysis of the two perspectives noting that generalised trust can be both a product of moral disposition and a reflection of recent experiences. Uslaner (2008:725) has also admitted that generalised

trust is affected by "both culture (where your grandparents came from) and experience (which groups you live among)...."

Prominent social capital researchers seem to subscribe to both experience-based and culturalist orientations. For instance, in much of his work on social capital, Putnam embraces the two perspectives. In his publication, 'Making Democracy Work: Civic Traditions in Modern Italy', Putnam adopts a historical-culturalist approach to explain the differences in the level of social capital between Southern and Northern Italy. However he also emphasises in the same work, the importance of institutions in creating and maintaining a trustworthy environment and goes on to define generalised trust as "a prediction about the behaviour of an independent actor" based on personal experiences (Putnam 1993:171). Recently, he has also demonstrated how immigration and resulting experience of ethnic diversity "*seems to bring out the turtle in all of us*[5]" (Putnam 2007:151).

Embracing the two perspectives, Elinor Ostrom asserts that social norms, reputation and social experience contribute to a generalised trusting attitude and concludes that a "…decrease in any one of these can lead to a downward cascade" in overall levels of generalised trust (Ostrom 2003:51). In essence then, generalised trust seems to be both a progeny of early childhood socialisation as well as adult-life experiences. Trusting attitudes are informed by cultural orientations, perceptions of institutional performances and several other changes in the socio-political environment. Against the backdrop of these two theoretical approaches, Lolle and Torpe (2011:483) summarising Rahn and Transue (1998) as well as Putnam (1993) re-define generalised trust as that "*standing inclination – on the basis*

[5] Emphasis original

of experience together with moral convictions – to give the other person the benefit of the doubt"[6].

The Standard Trust Question as a Measure of Generalised Trust

Over the past 50 years, generalised trust has been measured using the question originally devised by Elisabeth Noelle-Neuman in 1948. The question was first included in the cross-national survey Almond and Verba used to study civic culture across five countries in 1963 (Uslaner 2002). As I have intimated this question reads as follows: *"Generally speaking, would you say most people can be trusted or that you can't be too careful in dealing with people?*" Each country's level of trust is measured as the percentage of respondents who chose the answering option "*most people can be trusted"*. As the previous section has intimated, the validity and reliability of this question is a subject of a growing body of research and highly divergent conclusions. However, before I assess this inconclusive literature, it is useful to summarise the question's alleged weaknesses (or contested issues).

Major Flaws of the Standard Trust Question

The first weakness is that the phrase "most people" is ambiguous. Consequently, how it is interpreted can vary widely from one unit of analysis to the other thus creating unreliable data on generalised trust. For example, the phrase can be considered to mean "a wide range of people, such as family, friends and neighbours, and it is unknown how far this circle extends" (Beugelsdijk 2008:635). It is difficult therefore to know how effectively the question separates generalised and particularised trusters. It is possible that when interpreting this phrase, some respondents use, as their frame of reference, personal acquaintances such as neighbours, co-workers, friends or relatives (Delhey et al 2011). Conversely, others may

[6] Emphasis original

correctly interpret 'most people' as strangers or people who are noticeably (or culturally) different from them such as people from other ethnic, racial and religious groups.

Susan Smith (2010) argued that respondents could also be interpreting "most people" as the country's majority racial/ ethnic group. In such cases, the question would be a valid measure of generalised trust for minority group respondents since they would be referring to the group which is culturally different to their own. However, it would be tapping into particularised trust for members of majority ethnic groups who may have understood 'most people' as their co-ethnics. In essence, it is difficult for researchers to compare answers to this question when they do not know for sure that all respondents have the same notion of 'most people'. Also, it is possible that variations in levels of trust across countries and individuals reflect not the actual differences in the attribute being measured but how the question is being interpreted.

Recently, a number of studies explored the heuristics respondents employ to interpret the phrase 'most people'. In a large public opinion survey conducted in Sweden[7], some respondents were required to state who they thought the phrase referred to and their answers were quite diverse. For example, some respondents said that the phrase "*means all the people*" while others thought it referred to "*those who you just pass by in the street in some way"*. Still another respondent opined that most people are "*those who I have around me where I am… Where I live … and where I work… the people I meet every day"*[8]. (Lundåsen, 2010:5808).

Sturgis and Smith (2010) investigated who the British respondents imagined as most people when answering the standard trust question. The duo found that over 40% of the

[7] N= 12909
[8] Emphasis original

respondents imagined personal acquaintances while approximately half that figure thought of strangers or unfamiliar others. Most importantly, the authors noted that respondents who mentioned having thought about personal acquaintances were more likely to say that most people can be trusted compared to those who imagined generalised others. The implication of this finding is that the standard trust question can easily over-estimate levels of trust in those societies where most respondents incorrectly employ personal acquaintances as their frame of reference.

Denmark is known for its high levels of trust and social capital. Even in this highly trusting society, it seems that the standard trust question presents serious interpretation problems. Using data from the 2004 Danish Survey, Peter Nannestead found that of the 81.3% who said they trusted most people, 17% did not trust immigrants. The percentage exhibiting "true" generalized trust (including trust in immigrants) was below the trust level that most surveys report for Denmark (Nannestead 2008:417).

As Putnam (2000:137) has famously pointed out, the standard question "clearly taps feelings about trustworthiness of the generalized other – thin trust - but the meaning of the responses remains murky". This is partly because the question does not provide a context or subject of trust against which responses can be uniformly interpreted across different contexts (Soroka, et al 2006). Supposing respondents understand most people as "strangers", answers to the standard question can vary extensively depending on the situation each respondent is thinking about and in which he is willing to trust strangers. Nannestead captured the point thus: "For equally good reasons, probably nobody trusts anybody with respect to everything. Trust can be argued to be issue or domain-specific: I may trust you to handle my economic affairs but not my children, or vice versa. The generalised trust question as it is normally posed ignores this aspect…" (2008:417).

Apart from that, several scholars have shown that the standard trust question is indeed double-barrelled. The answering option '*you must be careful in dealing with others'* is not equivalent to '*cannot be trusted'* (distrust). Miller and Mitamura (2003) found that when the standard trust question was used, the Japanese students registered higher levels of trust than their American counterparts, which is consistent with the national level trust patterns obtained from the World Values Survey[9]. However, American students have higher levels of trust than the Japanese when '*you can't be too careful* is replaced with the word '*distrust'*. Similarly, Tom Smith found that the percentage of people who think most people can be trusted increases from 37% to 57% when the phrase you can't be too careful is replaced by 'distrust' or a clearer antonym of the term 'trust' (Smith, 1997).

Yamagishi et al (1999) show that when the response options of the standard trust question are posed separately, a substantial number of respondents actually agree with both of them. They concluded that "prudence in dealing with others does not necessarily mean lack of trust per se" (Yamagishi et al 1999:148). Beugelsdijk (2008) also noted that when the two answering options are asked separately, they produce scores that scale into two different factor dimensions. Helliwell and Wang (2011) have cited studies in which the question yielded relatively higher trust estimates for male respondents than their female counterparts. Conversely female respondents registered higher levels of trust when the question's phrasing excluded "*you can't be too careful*".

The fourth weakness is that the standard trust question forces respondents to choose between two options: trusting and caution/ distrusting, whereas in reality trust is not a dichotomous but a continuous variable (Guiso et al 2010). That is, trust is a matter of how

[9] The World Values Survey (WVS) conducts nationally representative public opinion surveys on the basic values and beliefs of people from almost hundred societies, on all six inhabited continents.

much of it an individual has, not whether she is trusting or misanthropic. It seems therefore that the question is not a precise measure of generalised trust (Zmerli and Newton 2008). Reskeens and Hooghe (2008) as well as Zmerli and Newton (2008) argue that with this binomial response set, the standard trust question can also confound statistical relationships.

The Standard Trust Question versus its Alternatives: Contradictory Research Findings

Recently, a number of international survey organisations have refined the standard trust question in several significant ways. The most notable of these developments involved transforming the binomial response set into an 11-point scale. Most surveys (e.g European Social Survey, US Citizen, Involvement, Democracy) have adopted a practice in which respondents are shown a card with numbers ranging from 0 to 10 along which they are required to indicate how much they trusted 'most people'. Other modifications include removing 'you must be careful' part and asking respondents how much they trust most people recording their answers on a 4-point likert scale. As I shall show, the literature is divided on whether this modification is a more accurate reflection of the concept of generalised trust (Lundåsen, 2010).

Rather than modify the standard question, some researchers found it useful to use completely different questions to measure generalised trust. Five of these questions have featured prominently in major international surveys. These are questions about a) *trust in people one is meeting for the first time*, b) *trust in people from other ethnic groups*, c) *trust in people of other nationalities* and d) *trust in people of other religious orientations and e) trust in fellow nationals*. Again, unlike the dichotomous standard question, response options are arranged on a 4 or 11-point rating scale. These supposedly precise and accurate measures of

generalised trust have been employed in various studies whose conclusions are sharply contradictory. Some scholars present empirical evidence suggesting that the standard trust question is a poor measure of generalised trust while other analysts show the exact opposite. The next sections summarise these findings.

Poor Measurement of Generalised Trust

Zmerli and Newton (2008) found that the 11-point scale is a more precise, accurate and *useful* measure of generalised trust than the binomial standard trust question. The duo argued that the difference between studies that found a micro level relationship between generalised trust and political trust and those which did not, lies in the way survey questions were designed. They reported that most of the studies whose findings contradict the theoretical expectation of a positive relationship between these variables are based on the data from surveys using the binomial standard trust question (Zmerli and Newton 2008). Analysing the ESS and US CID[10] data for twenty-four countries, the authors found a strong and highly significant individual-level relationship between generalised trust as measured by the eleven-point scale and satisfaction with democracy and political confidence. They emphasise that this *micro* level relationship does not exist when the standard trust question is utilised. Zmerli and Newton conclude that the 11- point scale has more construct validity than its single item counterpart since its results agree with the theoretical expectations concerning the relationship between generalised trust, political trust and satisfaction with democracy.

Henrik Lolle and Lars Toppe (2011) investigated whether the standard trust question captures the underlying construct of generalised trust as understood to mean faith in people one is meeting for the first time and/or people of different nationalities and religions.

[10] Both surveys included the standard trust question, the refined standard question with a four point Likert and eleven point scales

They grouped the 52 countries included in the latest wave of the World Values Survey (WVS) into five categories namely West, Old Eastern Bloc, Latin America, Asia and Africa. Besides the standard trust question, the WVS included the following questions: *how much* respondents trusted people they meet for the first time (*Trust first), how much* they trusted members of other religious groups and *how much* they trusted people of other nationalities. The responses were arranged on a four-point Likert scale with 1 representing *"do not trust at all*" and 4 *"trust completely*". One of their major assumptions was that if the standard question was valid and reliable, it would have a strong correlation with these supposedly clearer alternatives and that this would be consistent across the country blocs.

Contrary to their expectations, the authors discovered that the standard trust question and *trust first* were not strongly correlated[11]. In addition, the question was weakly correlated with the two other questions: trust in people of other religions and trust in people of other nationalities. Further, the majority of the people who agreed that most people can be trusted said they did not trust people they met for the first time. On the other hand, the question about trust in people one was meeting for first time was strongly correlated with the questions on trust in people of other religions and trust in people of other nationalities.

They also noted that the African bloc ranked the lowest (15.4%) when the standard trust question was used. However, the bloc ranks the second (after the western bloc) when *trust first* was used. With this evidence Lolle and Torpe concluded that the question may not be measuring generalised trust as generally understood in the literature. Most importantly, this also shows that the global geography of trust changes as the measures change.

[11] The authors do not provide the value of the correlation coefficient

The fact that the gamma coefficients of "trust most people" and "trust people you meet for the first time" were weakest in the African bloc suggests that relative to people from other countries, most Africans did not see these questions as related. Also, the comparatively huge differences between the gamma coefficients within the African countries' bloc are indicative of a large variability among these countries regarding how their citizens interpret the standard trust question. That is, compared to other blocs, the African countries are the most heterogeneous with regards to how their citizens understand the standard trust question. In essence, it seems that this measure of generalised trust is less reliable in the African continent than it is elsewhere.

Another problem with the standard trust question is the fact that it is a single-item measure. Tim Reeskens and Marc Hooghe (2008:519) argue "that relying on a single item measurement …cannot be considered as a reliable measurement method for attitudes". This is because many social science concepts, such as generalised trust, are too complex to be captured adequately by single items. In fact, such measures are particularly risky in cross-cultural research where respondents may interpret the question differently depending on among other things, the connotations the question carries in the languages in which it is administered.

In the light of these among other things, analysts agree that whenever possible, a multi-item measure of generalised trust should be utilised and appropriate tests conducted to ensure that such it captures trusting attitudes equivalently across various cultural contexts. Reeskens and Hooghe (2008) examined the cross-cultural validity of the multi-item measure of generalised trust fashioned out of the three items in the European Social Survey (ESS). In addition to the standard trust question, ESS included the following questions:

- ➔ *Do you think that most people would try to take advantage of you if they got the chance, or would they try to be fair?*

➔ *Would you say that most of the time people try to be helpful or that they are mostly looking out for themselves*?

Using multiple group structural equation model (MGSEM), the duo investigated whether these three items constituted an equally valid and reliable measure of generalised trust across the European countries. They focused mainly on scalar equivalence reasoning that this is both the most rigorous equivalence test and the necessary prerequisite for drawing conclusions about countries on the basis of their mean differences, (Reeskens and Hooghe 2008). While their results show that the multi-item measure is not scalar equivalent, the authors note that overall, it is a more reliable measure than the single-item standard trust question. Most importantly, Reeskens and Hooghe, (2008) conclude that the validity of generalised trust measures increases as more items are added and "self-evidently a three-item scale, as included in the ESS, allows for a more precise measurement" of generalised trust (Reeskens and Hooghe, 2008:530).

A "Useful" Measure of Generalised Trust

Several studies support the claim that the standard trust question is a valid and reliable measure of generalised trust. Knack and Keefer (1997), Knack (2001) report that this measure retains high convergent validity as it yields country level scores that are similar to those obtained through research methods other than surveys. For example, in 1996, *Readers Digest* conducted an experimental study in which 20 wallets were "lost" in 20 selected cities in the European countries with 12 more dropped in the United States. Each wallet contained its "putative" owner's address and a sum of 50 dollars (Helliwell and Wang 2011, Knack 2001, Lickona 2004, Knack and Keefer 1997). Danes and Norwegians returned 100% of the wallets; Americans returned 67%, Italians 35% and Mexicans 21% (Lickona 2004). As

Stephen Knack (2001) ably demonstrated, these results approximated those obtained by the World Values Survey using the standard trust question. Since the putative wallet owners were strangers to the wallet-finders, the standard question can be interpreted as appropriately capturing the amount of faith in strangers (Knack 2001). Helliwell and Wang (2001:8) captured this as follows

> …return of a lost wallet requires more than just honesty or absence of corruption, and much more than simply the assurance that people will do what they say they will do. It requires the wallet finder to reach out and perform a deliberate act of other-regarding kindness….

Still on the convergent validity, Guiso and colleagues (2010) reported that the levels of trust obtained by the standard trust question are also consistent with those produced by relatively accurate attitudinal measures such as vignettes. Indeed as King et al (2004) have argued, vignettes are more valid measures of highly abstract concepts such as generalised trust, political efficacy, political freedom and tolerance because they provide concrete situations, which all respondents can visualise as they think about a particular survey question. In addition to the standard trust question, Dutch National Bank Household Survey posed the following vignette:

> Suppose that a random person you do not know personally receives by mistake a sum of 1000 euros that belong to you. He or she is aware that the money belongs to you and knows your name and address. He or she can keep the money without incurring any punishment. According to you what is the probability (a number between zero and 100) that he or she returns the money?

The question seems to qualify as a more valid measurement of generalised trust for two reasons. Firstly, while it talks about a stranger ("*a random person you do not know personally")*, it also provides a concrete subject of trust ("*a sum of 1000 euros that belongs to you").* As such, it is relatively clearer than the standard trust question (Guiso et al 2010). Secondly, and most importantly, it enables all respondents to imagine a similar situation,

which enhances the comparability of results. The responses to this question and the standard question were highly correlated, suggesting that the former "indeed captures beliefs about the trustworthiness of fellow citizens" (Guiso et al 2010: 26). Apart from this study, the Canadian Equality, Security and Community Survey (ESC) asked a similar *wallet* question along with the standard trust question. The ESC data show that "an individual who says a wallet is 'very likely' to be returned is 30 points more likely to agree that most people can be trusted" (Soroka et al 2006:100)

Ciriolo (2007:36) examined whether self-reported levels of trust were "consistent across surveys conducted with radically different procedures". She compared the trust scores obtained by the standard trust question across three datasets: European Social Survey (ESS) and the European Value Survey (EVS) and World Value Survey (WVS) for 26 European countries. She surmised that if the trust scores were reliable, each country score across the three surveys would be highly correlated. In the ESS survey, the standard trust question was transformed into an 11-point scale while the EVS and WVS retained the binomial response set. Despite the unique attributes of each survey such as sample sizes, time and duration of the surveys, the ESS and EVS/WVS generalised trust scores were strongly correlated (r=.81), which supports the notion that the two versions are essentially measuring the same attribute.

Eric Uslaner (2009) used cross-national data to compare the binomial trust question with its 11-point counterpart. He noted that while the argument for increased precision is persuasive, the increased number of answering options that come with the 11-point scale may overwhelm respondents; gradations "may demand more precision than most respondents can or are willing to make" (2009:20). Apart from that, Uslaner observed that most distrustful respondents tend to choose middle categories such as 4, 5 and 6. He found that majority of respondents from countries where previous public opinion research established low levels of

trust tend to rate themselves at the centre of the 11 -point scale. For instance, more than 50% of the respondents from Spain, Moldova and Romania placed themselves in the middle of the scale. However, 77% of the Spaniards as well as 79% of the Moldovans who opted for middle categories also said 'one needs to be careful in dealing with others'. His analysis shows that most respondents are not able to discriminate among the popular answering categories of 4, 5, and 6. Also Uslaner shows that these categories don't represent distinct values, in that trusting someone "eight feet does not seem that different from trusting her 12 feet" (2002:78).

Uslaner also used the ANES data to examine how well different measures of generalised trust perform in comparison with each other and how well each yield results that are consistent with theoretical expectations of trust and social capital. The 2006 ANES Pilot Study asked the following generalised trust question along with the standard question:

- Generally speaking, how often can you trust other people? [Always, most of the time, about half the time, once in a while, or never? Never, once in a while, about half the time, most of the time, or always?]
- What percentage of people can you trust all of the time?
- What percentage of people can you never trust at all?

When he regresses these questions on several theoretical correlates of generalised trust, Uslaner found that the standard trust question has higher construct and criterion-related validity than its counterparts. The standard question is a better predictor of tolerance and several other individual-level correlates such as satisfaction with life. Further, compared to the other three, the standard question obtains relatively consistent trust estimates in both the 2004 and 2006 datasets (Uslaner 2008).

Validity and Reliability of the Standard Trust Question beyond American and European Contexts

As the foregoing assessment indicates, much of the literature on the validity and reliability of the measures of trust is based on the data collected from the United States and European countries. The admittedly intermittent research on social capital in Africa often infers the validity of the standard trust question owing to its long-term usage in the social capital research as well as the fact that until very recently it was the only one available in the surveys that included African countries (see Zerfu et al 2008, Kuenzi 2008). Although the World Values Survey (WVS) has recently introduced new generalised trust questions, very few studies have evaluated their merits against the standard trust question and their results raise serious concerns about the validity and reliability of the standard trust question as a measure of generalised trust. For example, besides Lolle and Torpe's (2011) research whose key findings I have mentioned, Delhey, Newton and Welzel (2011) employed the WVS to examine how well the standard trust question measures trusting attitudes in people who are outside of the respondents' inner circle (radius of trust).

The authors show that when using the standard trust question, western and the Confucian societies appear to have high levels of trust. For instance, China and Switzerland seem to have an equally high level of generalised trust. However, when they explore the radius of trust - that is, how far the respondents' trusting attitude extends - the picture changes significantly: Switzerland remains a high trusting society while China's trust levels decline significantly. Concerning the African countries, the authors' findings raise important questions about the cross-national reliability of the standard trust question. Out of the 51 WVS countries, the standard trust question ranks Rwanda at number 50, while Ghana and

Zambia are numbers 48 and 39 respectively. However, when the authors standardize the radius of trust across the 52 countries, Rwanda moves 18 places up and ranks at number 32 and Ghana at 35. Zambia leaps up to number 12. In fact, when the standard question is adjusted for the notion of people, Zambia appears to have higher levels of trust than a most of the countries that were generally thought to have comparatively high levels of trust and social capital.

Conclusion

Certainly the question that Afrobarometer used to generate data from which Bratton and colleagues (2005) established levels of trust in the African countries is controversial. The literature raises more questions as to the validity and reliability of the data thus generated. We are uncertain as to whether the levels of trust obtained by the question presented a true picture of how trust is distributed in sub Saharan Africa.

Chapter 3
Research Design and Methodology

Some Key Concepts in the Measurement Research in Political Science

Testing for reliability and validity is essentially showing the extent to which measurement errors may have distorted research findings and conclusions (Zeller and Carmine 1979). It is important therefore to begin this chapter with a brief overview of what is meant by measurement errors, describe the concepts of validity and reliability and ways of testing for them in political science research. This study is designed around these ways of testing for validity and reliability.

MEASUREMENT ERROR

Every measuring process is inherently error-prone. That is, there will always be some "difference between an abstract concept, considered the 'true' score, and the 'observed' measurement provided by an empirical instrument" (Higgins and Straub 2006:23). This difference is called measurement error and it can be divided into two major types: random and systematic errors. Random errors are the variations in observed scores that are due to such chance factors as the respondents' mood and various random data processing mistakes. Random errors are often called "noise" since they do not affect the observed scores in any particular direction. On the contrary, systematic errors are consistent and affect observed scores in a specific direction. Systematic errors could be a result of an incorrect conceptualisation of the unobserved (latent) construct that the instrument is trying to measure.

PRECISION

Johnson, Reynolds and Mycoff (2008) show that precision concerns how well a measuring device produces sufficient information about the attribute being measured. For Babbie et al (2010:150) precision is related to "the fineness of distinctions made between the attributes that compose a variable". For instance, a survey measurement will be less precise when it generates data about the income bracket respondents (e.g. R1000- 5000) as opposed to the exact income figure (e.g R2460). A survey question that elicits categorical data when the phenomenon being studied can be captured as continuous variable has limited precision. For example, a measure designed to treat regimes as either democracies or non-democracies may be less precise than the one that uses gradations (see Elkins 2000). As I have indicated in the previous chapter, if generalised trust is a matter of degree and most respondents understand it as such, a question that requires people to choose *whether or not* they trust anonymous others may be less precise compared to the one that requires them to state *how much* they trust these people.

Measurement precision is about levels of measurement, which are nominal, ordinal, interval and ratio scales. Nominal and ordinal scales are used to derive data that can be classified into names and ranks respectively. Interval and ratio scales are used to capture (numerical) continuous data. Survey questions are devised in ways that elicit either categorical (nominal and ordinal) or continuous (interval and ratio) types of data. A measure's precision increases from nominal scale (lowest precision) through to ratio scale (highest precision). Precision is often related to reliability as it refers to "an index of how closely results can be duplicated from one measurement to the next" (Streiner and Norman 2006:326). However, political scientists have shown that while related, precision of a

measure should not necessarily be considered as indication its reliability (Johnson, Reynolds and Mycoff 2008).

RELIABILITY

Reliability tests seek to demonstrate how well a measuring device obtains estimates that are consistent across time and space, holding other things constant. It is important to note however that social science measures rarely elicit exactly the same scores each time they are used. There are four major ways of showing reliability in the social science research. The ***test-retest method*** involves using the same measure on the same units of analysis at different times and comparing the results. If the moralist-culturalist claim that generalised trust remains stable over time is true, the scores that its measures obtain should be similar at different points in time. However, it should be noted that a measure of generalised trust may obtain quite different scores because trust itself has changed not because the measure is unreliable. The ***Split-half reliability method*** avoids this problem by applying several measures of the attribute to the same group of respondents at the same time, splitting the data in half and comparing these halves.

We can also evaluate ***the internal consistency*** of several measures of the attribute. This ascertains how well the measures cluster together and can be used in a scale. While internal consistency reliability assesses whether two or more survey items can be used to form a reliable multi-item scale, ***alternative-form or parallel-form method*** looks at whether these items derive equivalent estimates when they are used independently of each other. According to Johnson, Reynolds and Mycoff (2008) alternate-form reliability uses two different measures of the same attribute at two different times. In subsequent sections I

explain how these methods will be applied in this study to assess the reliability of measures of generalised trust in sub Saharan Africa.

ACCURACY

Accuracy concerns the extent to which a measure is a true reflection of reality. While it does not preclude reliability, the accuracy of a measurement is primarily a question of validity (Reynolds et al 2008:94).

VALIDITY

Measurement validity is concerned with the extent to which an indicator adequately *captures* an unobservable or latent construct. The simplest way to assess validity is to show the extent to which, at face value, the instrument measures what it is intended to measure. This is called ***face validity***, and it involves showing that the information the instrument is collecting about the concept "is 'germane to that concept'" (Johnson, Reynolds and Mycoff 2008:98). Beyond face validity, there are three other ways of demonstrating measurement validity in political science: content validity, construct validity and criterion validity.

A measure is ***content valid*** when it captures the full domain of the concept. Thus content validation process comprises "a critical review of the instrument's items in order to assess domain sampling adequacy and coherence of items" (Higgins and Straub 2006:25). If trust has several dimensions, our survey instrument would be content valid to the extent that it covers these various aspects. Further, in order to be content valid, our survey questions would have to use words and phrases that reflect the nature of generalised trusting.

Cronbach and Meehl (1955) as well as Collier and Adcock (2004) maintain that it is easier to explore content validity when the literature concurs about the key components of the concept. Unfortunately, as highlighted in the previous chapter, the literature is divided on the conceptual universe of generalised trust. Summarising this literature, Peter Nannestead (2008:414) has noted that "research on generalized trust… does (still)[12] not proceed from a common understanding of what the term "trust" designates. There is not even agreement on the category to which trust belongs". This has certainly posed serious challenges to the content validation of the measures of generalised trust.

Notwithstanding these limitations, most political scientists seem to concur that survey measures of generalised trust are content valid to an extent that they require respondents to state their level of faith in people who are socially distant from them. Such measures would include the following items:

a) How much respondents trust strangers as understood to mean people one is meeting for the first time
b) How much respondents trust other ethnic groups, religious denominations and nationalities.
c) How much respondents trust other citizens in general

Rosnow and Rosenthal (2008:140) note that ***criterion validity*** "refers to the degree to which a test or questionnaire is correlated with one or more outcome criteria (a variable with which the instrument should be reasonably correlated)". In political science, the most important objective of criterion validity is to see how well the measure correlates strongly with the items with which it should theoretically be strongly correlated.

[12] Parenthesis original

Theory plays an important role in ***construct validation*** since it provides a framework within which measurement results can be meaningfully interpreted (Carmine and Zeller 1979:17). ***Construct validation*** is essentially a process of linking observed scores to some underlying theory or hypothesis (Hubley and Zumbo 2009). Carpini and Keeter (1993:1199) hold that the "key question for construct validation is whether studies using the measurement produce results that are predictable from highly accepted theoretical hypotheses concerning the construct". Convergent validity is one important sub-category of construct validity (Raykov 2010, Adcock and Collier 2004). As Rosenthal (2003:35) points out "Researchers typically establish construct validity by presenting correlations between a measure of a construct and a number of other measures that should, theoretically be associated with it (convergent validity) …"

THE AFROBAROMETER DATA

The study uses data from Afrobarometer (AB) Rounds 1, 3 and 4. Round 1 was conducted between 1999 and 2001, Round 3 between 2005 and 2006 and Round 4 between 2007 and 2008. Round 2 had no interpersonal trust items. Afrobarometer is an independent research network that has conducted opinion surveys in about 20 sub Saharan African countries since 1999. Each Afrobarometer Round uses similar questions in order to facilitate cross-national comparisons. Moreover, Afrobarometer employs language experts to carefully translate questions into several local languages. The questionnaires are then administered to the respondents in their preferred language. This ensures that questions are fully understood and that meanings of key concepts are equivalent across different dialects. The nationally

representative sample sizes range from 1200 to 3600[13]. However, in the merged datasets, which the study uses, all country samples are weighted down to 1200.

Assuming that generalised trust does not change much over time, the 10-year period within which the surveys were conducted allows the study to examine the consistency of its measures. The standard trust question (with its binary response set) was used in Round 1 (1999/2000) and Round 3 (2005/06). In addition to the standard trust question, Round 3 included four different items on interpersonal trust as follows:

How much do you trust each of the following types of people?

(a) Your relatives

(b) Your neighbours,

(c) People from your own ethnic group [or tribe]

(d)People [e.g Ghanaians] from other ethnic groups/ tribes/ clans

Scale: 0= Not at all, 1= Trust them a little, 2=Trust them somewhat, 3= Trust them completely

Similarly, Afrobarometer Round 4 comparable interpersonal trust questions:

How much do you trust each of the following types of people?

a) Your relatives

(b) Other people you know

(c) Fellow citizens [e.g other South Africans]

Scale: 0=Not at all, 1= Just a little, 2= Trust them somewhat, 3=Trust them completely

On the face value, the trust non-co-ethnics and trust fellow citizens' questions qualify as measures of a more general trust compared to trust relatives, neighbours, co-ethnics and people you know. Beyond that, these questions seem to have superior content validity than

[13] Further information about Afrobarometer such as sampling methods, questionnaires and data are provided in the Afrobarometer website: www.afrobarometer.org

the standard trust question. As Rothstein and Uslaner (2010) remind us "generalised trust reflects bonds that people have across a society…, across ethnic groups, religions and races". The trust non co-ethnics' question clearly reflects this operationalization. It specifies that it solicits the level of trust in people who are possibly culturally different from the respondent. The trust fellow citizens' item mirrors the operationalization of generalised trust as that faith "a given person has towards a generic and unknown member of the broader community (the country)" (Guiso et al 2010:22). These items are relatively more precise because, unlike the dichotomous standard trust question, response options are arranged on a 4-point Likert scale. In addition, the questions specify the person whose trustworthiness respondents are required to evaluate, (i.e., 'people from other ethnic groups or tribes' and fellow Ghanaians), which make to appear more accurate and clearer than the question about trust in "most people".

RELIBAILITY TEST DESIGNS

Test-Retest Reliability

I examine the test-retest reliability of the standard trust question by comparing the trust scores it has obtained in Rounds 1 and 3 for the 10 countries in which it was posed in both rounds. These countries are Botswana, Lesotho, Malawi, Mali, Namibia, Nigeria, South Africa, Tanzania Uganda and Zambia. The standard trust question was not asked in Ghana in Round 1 and Zimbabwe in Round 3 hence their exclusion in the test-retest analysis. Also, while they were part of Round 3, Benin, Senegal, Mozambique, Cape Verde, Madagascar and Kenya did not form part of Round 1. The standard trust question will be considered a reliable measure of generalised trust to an extent that it obtains similar values for each country in both Rounds.

Investigating overtime reliability of the measures of trust gets complicated by the fact that there are no benchmarks against which to measure consistency. The literature does not indicate, for instance, what percentage change in generalised trust scores is to be used to qualify a measure as reliable. Indeed, studies that either reject or support the longitudinal reliability of the standard trust question provide highly arbitrary "acceptance" margins. For some analysts, 5% change in trust levels over a period of time seems to qualify as evidence for longitudinal reliability. However, other scholars interpret the same amount of change as a sign that the standard trust question is an unreliable measure of generalised trust. Since there is no common standard against which to gauge over time reliability, this study considers a fluctuation that is within +/-3% margin of error as an indication that the measure is longitudinally reliable.

Notwithstanding, a five-year interval between Rounds 1 and 3 may be a long period for generalised trust levels to have remained within this error range. During this period, generalised trusting attitudes could have declined or increased for various reasons (see Adam 2008:180). To estimate whether observed changes reflect an unreliable measure or genuine changes in trust levels I also consider comparable data from the World Values Survey (WVS). If trust levels remained the same over time, WVS and Afrobarometer data should yield similar estimates.

Alternative-form Method and Internal Consistency Reliability

In the alternative form reliability test, I compare the scores of the standard trust question with those obtained by the trust non-co-ethnics question. The trust levels obtained by the standard trust and trust in non-co-ethnics questions will be drawn from Round 3. I use trust in fellow citizens' question (from Round 4) as a baseline to ascertain which one between the standard

trust question and trust in non-co-ethnics question is less reliable. In other words, this question will be used to 'officiate' between the standard trust question and trust in non-co-ethnics' question. Indeed, trust in fellow citizens (e.g South Africans) question provides an alternative form for both the standard trust question and trust in non-co-ethnic question. Internal consistency reliability evaluates whether the standard trust and trust in non-co-ethnics' questions can be used as part of a composite measure of generalised trust.

VALIDITY TEST DESIGNS

Construct Validity

Convergent and Discriminant Validity Tests

As I have indicated, a measure is convergent valid when its scores correspond to those obtained by an alternative measure of the same underlying construct. Using Round 3 data, I examine whether the percentage of respondents who agreed that most people can be trusted is similar to the one for those who said they trusted non co-ethnics' a lot. Discriminant validity will be tested by comparing 'trust in most people's' percentage scores with those of trust a lot in relatives, neighbours and co-ethnics a lot to see how the question distinguishes between close acquaintances and distant others. They assumption is that, if the standard trust question is valid, the percentage scores for 'trust in most people' will be more similar to those of trust non-co-ethnics a lot than they will be to other interpersonal trust items. However, since they are supposed to represent the two extremes in the interpersonal trust continuum, trust a lot in non-co-ethnics and trust a lot in relatives will be the most important indicators of convergent and discriminant validity of trust in most people..

Apart from that, construct validity will also be tested by inspecting correlation matrices and running factor analysis using all the trust items in Round 3. I expect trust most people item to load with trust non-co-ethnics item as indicators of generalised trust. Trust relatives, trust co-ethnics and trust neighbours are expected to load into particularised trust factor.

Criterion Related Validity

The social capital theory predicts the linkage between generalised trust, associational membership and civic engagement. Generalised trust should make individuals more willing to co-operate with unknown others on activities that are meant to benefit the wider spectrum of society. In this connection, variables measuring respondents' attitudes to civic engagement as well and previous public participation records provide useful criteria for estimating the validity of the measures of trust. Membership in voluntary associations such as community development groups is said to foster s cooperative attitude thereby generating trust in others. Assuming that these theoretical postulates are correct, valid measures of trust would correlate strongly and significantly with measures of associational membership and civic engagement. Using Round 3, I compare the correlations of trust in non-co-ethnics and trust in most people questions to assess the extent to which the latter is a valid measure of generalised trust.

As I have indicated in Chapter 2, there is a strong argument that the answering options of the standard trust questions, 'most people can be trusted' and 'you must be careful in dealing with others' are not mutually exclusive. This means that some respondents may choose 'you must be careful' because they feel that caution and trusting can proceed in tandem not necessarily because they are low trusters. The simplest way to test whether those who say 'most people can be trusted' are different from those who feel that one 'must be careful' is to examine how they trust non-co-ethnics question. I expect the group of

respondents who feel that one must be careful to have markedly lower scores on trust non co-ethnics question.

Linkages between Trust in Most People, Ethnic Diversity, Democracy and Economic Development

Before concluding this study, I will examine the relationship between the scores of the standard trust question and the national level scores of democracy, ethnic diversity and economic development. The section will simply explore the correlations without trying to reveal the underlying causal mechanisms.

To test the relationship between generalised trust and ethnic diversity, I use Posner's Politically Relevant Ethnic Group (PREG) index. Firstly, other measures of ethnic diversity such as those employed by Alesina et al (2002, 2003), Easterly and Levine (1997) and Fearon (2003) were based on data collected in the early 1960s when much of Africa's ethnic dynamics were not properly understood (Posner 2004). For instance, the widely used Ethno-Linguistic Fractionalization (ELF) index lumps together the Rwanda's Hutus and Tutsis under the 'Banyarwada' label, which is very misleading taking into account the history of that country. Also, in countries like Togo, this index separates what the local experts regard as similar ethnic groups (Posner 2004). In short, previous measures of ethnic diversity seem to conceal genuine ethnic differences where they exist and create some where there are none. To avoid these and other errors, Posners's index simply considers groups that can contest or have historically contested political power as an ethnic group.

In essence, Posner's measure suggests that it is not mere linguistic fractionalization that matters, but the extent to which these cleavages have been politicized As such, countries that may have a number of ethnic groupings may appear to have low index of ethnic diversity

because their ethnic divisions are not politically relevant. The PREG index uses values ranging from 0 for the probability that a randomly selected person belongs to politically irrelevant ethnic group to 1 where everyone in the country belongs to a politically relevant ethnic group.

I use the 2005 polity scores to measure the degree of democracy for each of the 16 countries included in this analysis. The polity index is a continuous (21 point) measure of democracy with -10 denoting hereditary monarchies and +10 consolidated democracies.[14] National wealth is measured by GDP per capita as adjusted for purchasing power parity. I use the 2005 GDP annual growth rates as reported by the World Bank. The reason for using the 2005 estimates is that the Round 3 Afrobarometer data I am using was conducted around the same period.

[14] http://www.systemicpeace.org/polity/polity4.htm

Chapter 4
Reliability Analysis of the Standard Trust Question

Introduction

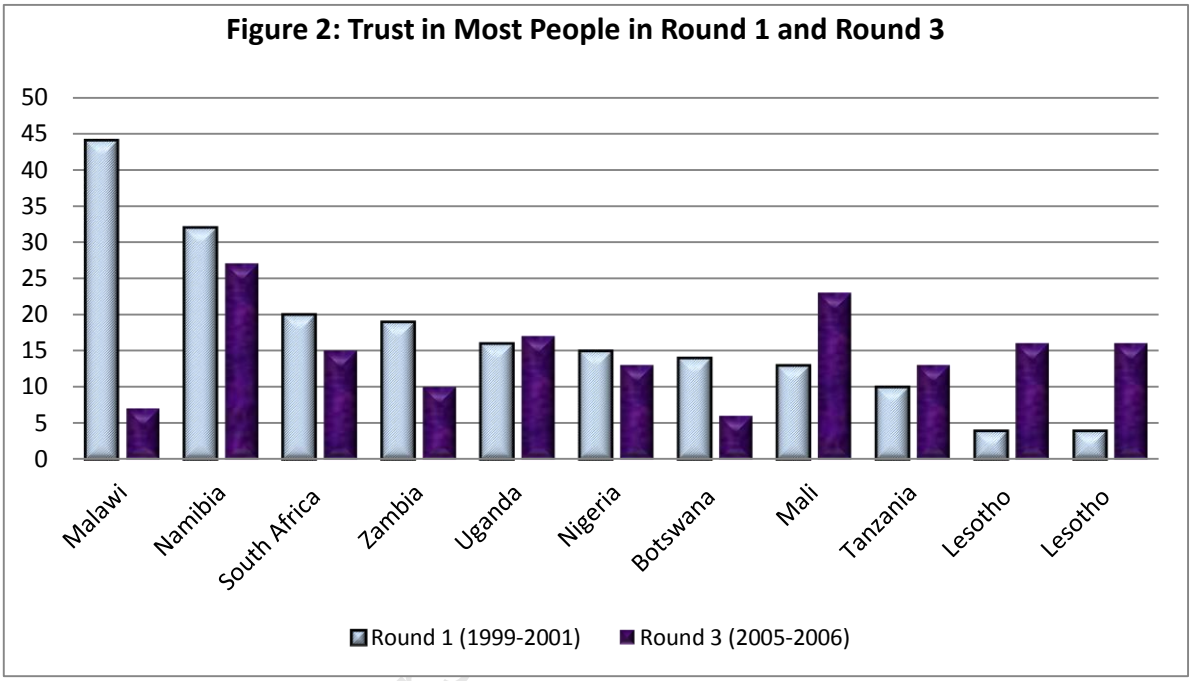
This chapter examines the reliability of the standard trust question as a measure of generalised trust. Longitudinal reliability is assessed by the test-retest and alternate-form reliability analyses. Test- retest examines the stability of the standard trust question using the scores it has obtained for the 10 African countries in which it was posed in the 2000/01 (Rounds 1) and 2005/06 (Round 3) Afrobarometer surveys. The alternate-form reliability and internal consistency tests use Rounds 3 data to compare the standard trust question and trust in non-co-ethnics question.

Test-retest Reliability

Without any standard concerning the amount of change in trust levels against which to assess the measure's 'stability or consistency', we can rely on a +/-3% margin of error for the Afrobarometer merged data, which being weighted to N=1200 represent countries equally. The aggregate data comprising the 10 countries in which the standard trust question was asked in Rounds 1 and 3 indicate some degree of longitudinal stability. Trust levels changed by 2 percentage points from 17% in Round 1 to 15% in Round 3. However, it is possible that this aggregate stability masks larger internal variations within specific countries. In other words, the most important thing is whether this question is longitudinally reliable in each of the countries in the survey.

When viewed in this way, generalised trust seems to have been perfectly stable in Tanzania, Nigeria and Uganda where changes in trust levels remained within +/-3%. As shown in **Figure 2** the percentage of people who agreed that most people can be trusted increased by 3 percentage points in Tanzania, dropped by 2 percentage points in Nigeria and increased by a percentage point in Uganda.

Figure 2: Trust in Most People in Round 1 and Round 3



However, the standard trust question indicates that over this 5-year period, the stock of generalised trust changed by 5 percentage points in 2 countries (South Africa and Namibia) and 8-12 percentage points in 4 countries (Mali, Lesotho, Zambia and Botswana). The steepest decline was observed in Malawi where trust levels plummeted by approximately 37 percentage points from 44% in Round 1 to 7% in Round 3.

Despite that the standard trust question does not obtain scores that fall neatly within +/-3% error rates in most countries, its values from either survey reflect the regional average of +/-20%. Except for Malawi, these results are generally consistent with what previous research

has established about trust levels in most African countries (see Bratton, Mattes and Gymah-Boadi 2005, Norris 2002, Inglehart 2010).

Supporting Evidence from the World Values Survey

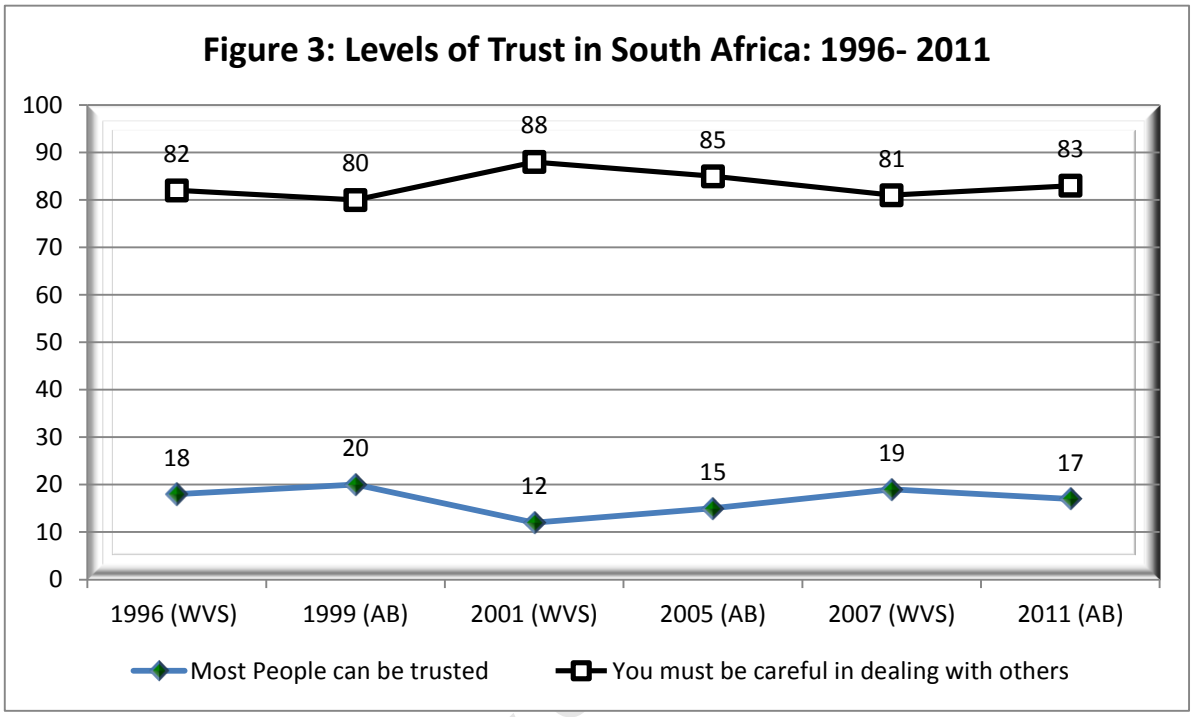
One of the challenges of test-retest reliability is history or maturation whereby factors other than measurement might influence the observed scores. The longer the interval between the tests, the more likely that the discrepancies in the observed scores reflect changes in what is being measured rather than the unreliable measure per se (Diener, Inglehart and Tay 2012). In the light of this, one may argue that the five year interval between Rounds 1 and 3 partly accounts for the dissimilar trust estimations obtained in other countries. In order to test this claim, I compare the Afrobarometer trust scores with those obtained by the World Values Surveys.

Conducted in 2007, the 5th wave of the World Values Survey (WVS) includes data for South Africa, Mali and Zambia. According to these data, 19% of South Africans, 18% of Malians and 13% of Zambians agreed that most people can be trusted[15]. The differences between the 2005 AB and the 2007 WVS trust scores are 4% for South Africa, 5% for Mali and 2% for Zambia. This shows that the relatively large difference (10%) between Round 1 and 3 Malians and Zambian trust scores are partly explained by the longer interval between the surveys.

The World Values Surveys have been conducted more consistently in South Africa than any African country. Accordingly, the WVS and AB South African datasets provide an opportunity to conduct a longitudinal reliability test using scores spanning a longer period

[15] Online analysis of WVS data at http://www.wvsevsdb.com/wvs/WVSAnalizeQuestion.jsp

with shorter intervals between surveys. The results presented in **Figure 3** are based on 3 Afrobarometer surveys and 3 World Values Surveys conducted between 1996 and 2011[16].



These cross-survey results show a remarkable stability in the trust scores over these 15 years. It is only between 1999 and 2001 that the change in trust levels was relatively steep.

Sceptical readers may argue that due to its level of economic development South Africa is not a typical African country. Consequently results obtained from the South African data may not apply in other African countries. While the first statement goes without saying, the second is somewhat controversial when applied to such outcomes as generalised trust. Firstly, the only unique feature about South Africa - which is likely to impinge on trust levels - is the size of its economy. Other than this, South Africa mirrors many African countries on issues that are said to be important for generalised trust. According to Freedom House and Polity

[16] The 1991 WVS was not nationally representative sample as it excluded several black communities apparently not accessible to the enumerators.

measures of democracy, South Africa has roughly the same status as the likes of Ghana, Mauritius and Botswana. South Africa has a history of ethnic/racial conflict; it is an ethno-linguistically polarised society; it has high levels of income inequality and high rates of crime. In addition to that and most importantly, South Africa's trust scores are not unique as they fluctuate around the regional (continental) average of 20%. In essence then, one could argue that the results presented in **Figure 3** can indeed be generalised across the African continent or at least the 10 countries considered in this analysis.

Malawi: A Deviant Case or Evidence for Lack of Reliability?

The foregoing results seem to support the argument that the standard trust question yields generally reliable results. However, the 37 percentage points' drop in trust levels reported in Malawi cannot be ignored. This very steep decline could be an indication of the measure's unreliability. Alternatively, the huge discrepancy between the trust scores could be reflective of the events unique to Malawi that occurred between Round 1 and Round 3 surveys. One such possible occurrence is the famine which greeted Malawi between 2002 and 2005 (see Menon 2007, Devereaux and Tiba 2007).

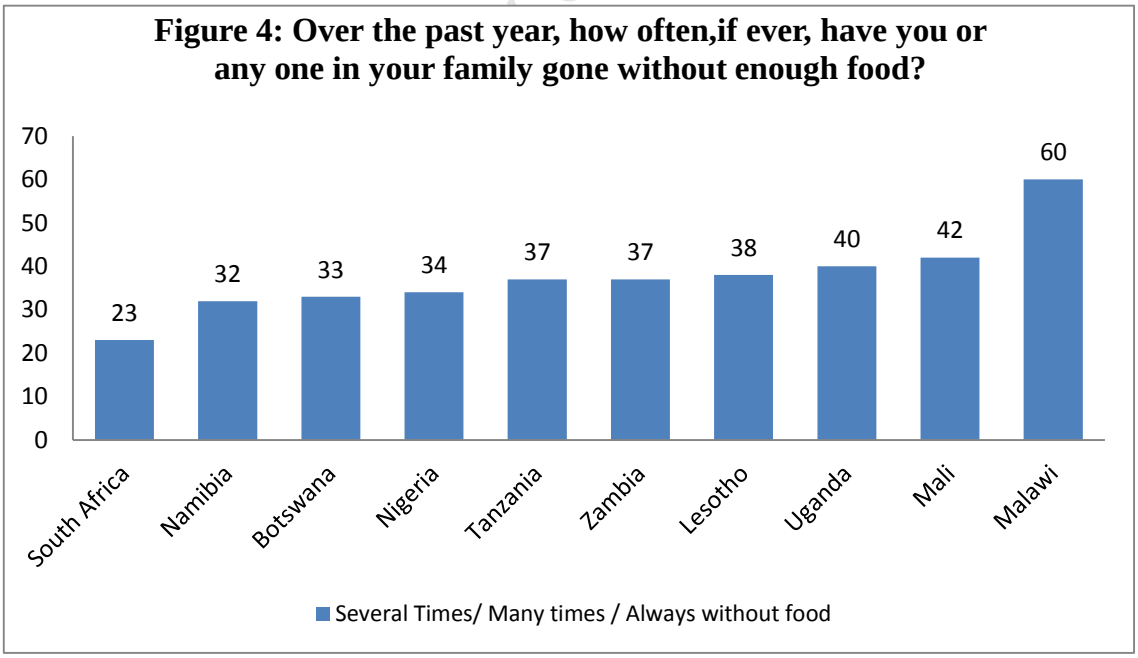
In both rounds, Afrobarometer asked about the frequency with which respondents or their family members had gone without enough food in the past 12 months. In Round 1, 20% of the Malawians did not have enough food often while the remaining 80% said this happened 'sometimes', 'rarely' or 'never'. In Round 3, more than 60% of the respondents went without enough food 'many times', 'several times' and 'always'. This confirms that the food crisis was certainly at its highest point after the Round 1 Malawi survey was conducted.

Several analysts have described how the famine destroyed communal ties and solidarity in Malawi (Nnoaham 2008, Devereux and Tiba 2007). As Devereux and Tiba

noted, the Malawian "food crisis contributed to a rise in individualism and anti-social behaviour… accelerating an erosion of communal values and reciprocal arrangements that may have been ongoing for several years" (2007:150). Analysing several data sources including surveys, field observations and focus group discussions, Devereux and Tiba reported that one sign of the steep decline in "trust in neighbours and strangers was that people guarded their assets more carefully… sleeping outdoors or sitting up all night in their gardens…" (Devereux and Tiba 2007:151).

To assess whether the famine had any effect on trusting attitudes in Malawi, we need to explore firstly how the question of 'how often respondents went without enough food' was answered in all the countries in Round 3. Of the 10 countries considered in this analysis, Malawi is the only one in which 60% of the respondents went without enough food in the previous year as shown in **Figure 4**.

Figure 4: Over the past year, how often,if ever, have you or any one in your family gone without enough food?



Nonetheless, there is almost no individual relationship between trust and going without enough food in either Rounds 1 or 3 Malawi surveys. However, when we disaggregate the analysis by region, Round 3 data indicate that the more frequently Malawian urban people went without enough food, the less trusting they became of most people. But the relationship is barely significant.

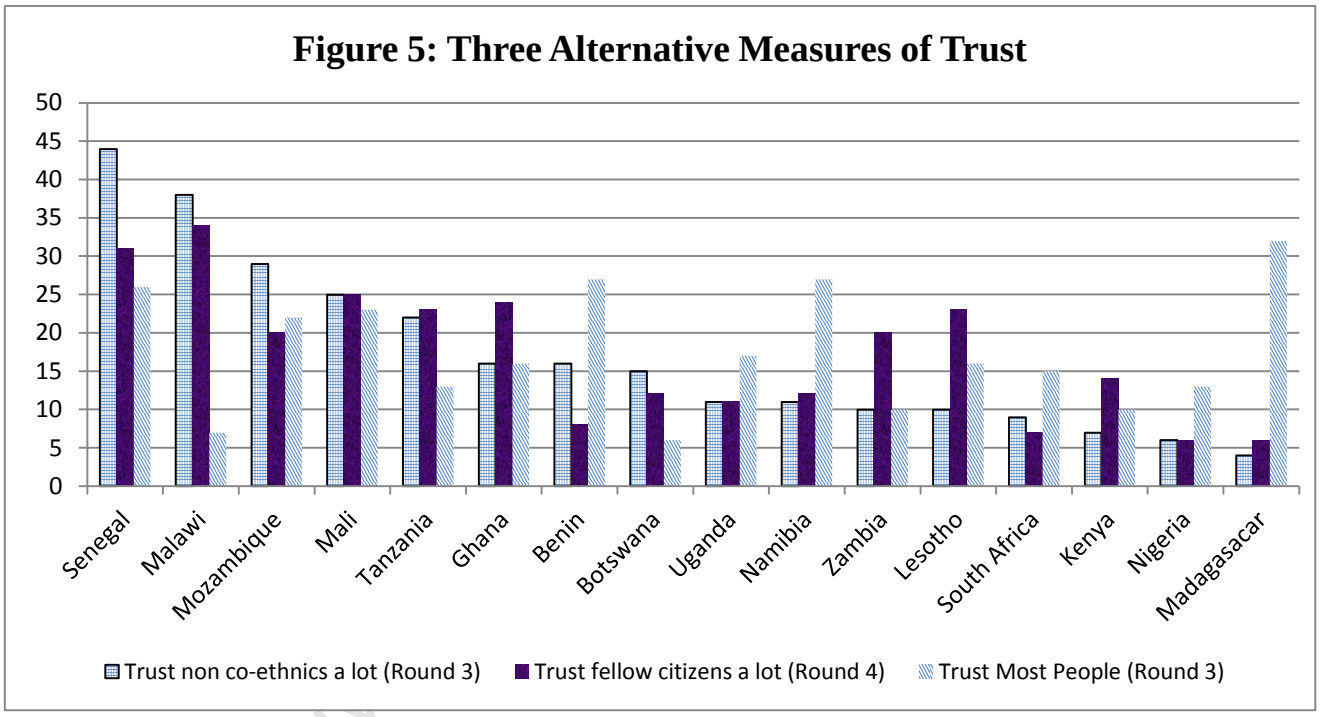
Alternate-form Reliability

The reliability of the standard trust question can also be assessed by comparing its country-level scores with those of its presumed alternatives, the 'Trust in non-co-ethnics' and Trust in fellow citizens' questions. If the standard trust question yields reliable data, its scores should compare favourably with those obtained by these alternatives. However, as Newton and Zmerli (2011) have noted it is difficult to compare the binomial standard trust question with a 4-point rating scale. When comparing dichotomous and graded measures, researchers could compare the mean values. However, since the mean values of a dichotomous scale can be misleading, the likert scale can be divided into two parts or 'dichotomised' so that its responses can be aligned to those of a binomial scale. The challenge, however, is deciding where to divide the rating scale as the scholars who compared the binomial standard trust question to its 4 or 11-point scales alternatives have noted (see Zmerli and Newton 2011, Uslaner 2006, Ciriolo 2008).

Bratton and colleagues (2005) 'dichotomised' the trust non co-ethnics' question such that the percentage scores for 'not trust at all', 'trust a little' and 'trust somewhat' are aligned to 'you must be careful in dealing with others'. Likewise percentage scores for 'trust a lot" were considered to be concordant with those pertaining to "most people can be trusted" (see Bratton et al 2005:195). As Mattes (2012) has argued, since they are likely to be conveying a

sense of scepticism, people who choose the response category 'trust somewhat' should be classified with those who say they trust non co-ethnics 'not at all' or 'a little'.

Figure 5 shows percentage scores of trust obtained in 16 countries by the three generalised trust questions. The bars represent percentage scores for trust most people (Round 3), trust non-co-ethnics a lot (Round 3) and 'trust fellow citizens' a lot (Round 4).



Except in Mali, the scores of the standard trust question are quite different to those obtained by its alternatives. However, the percentage values for trust a lot in non-co-ethnics and trust a lot in fellow citizens look very similar in most countries. In fact these values have a strong and highly significant correlation ($r=.783$, $p < 0.01$). Clearly, the scores obtained by standard trust question are not equivalent to those of its alternatives. However, the substantive question is whether measuring trust using these alternative questions yield results that give a different picture of the trust distributions in Africa.

Although the standard trust question does not obtain estimates that perfectly correspond to those of its alternatives, its aggregate score yields a similar picture to the one its alternatives paint about generalised trust in Africa. The aggregate percentage scores for 'trust a lot' in non-co-ethnics, 'trust a lot' in fellow citizens and trust in most people range from 15% to 17%, which confirms the notion that Africa is a generally low trust region. In essence, at the macro level, these measures can be used interchangeably as they give a similar overall impression about overall levels of generalised trust in Africa. However, for those interested in the trust distributions *within* and *across* African countries, trust in most people scores cannot be used as a reliable alternative for either 'trust a lot' in non-co-ethnics or 'trust a lot' in fellow citizens.

On the other hand, trust non-co-ethnics and trust fellow citizens questions can indeed be regarded as relatively equivalent forms. Not only do they give a similar aggregate picture of trust in the African continent, their scores are quite stable across countries *within* the continent. For example Senegal, Malawi, Tanzania and Mozambique rank highly on both measures while Nigeria, Botswana and Lesotho occupy low positions.

Internal Consistency Reliability

In the alternative- form reliability analysis, the focus was on how different questions perform when used independently to measure generalised trust. This section briefly examines how the standard trust question and trust in non-co-ethnics question perform when they are used together in a scale. The cronbach alpha is affected by the number of items included in the scale. For example, a relatively unreliable scale can have a relatively large alpha value when there are many items in the analysis. Likewise, a relatively reliable scale can have a smaller alpha value as a result of the small number of items included in that scale (Field 2009). In

essence, the number of items should be taken into account when deciding what minimum alpha values qualify the scale as reliable. Although many social scientists accept an alpha value of more than .7, I consider an alpha above .5 as an indication that the scale is reliable since I am using only two items.

The reliability analysis of the aggregate data yields a cronbach alpha of .374 suggesting that the proposed two item scale will not be reliable. **Table 2** shows the internal consistency of the two generalised trust items for each of the 16 countries in this analysis.

Table 2: Cronbach Alpha for a two-item Scale (Standard Trust Question and Trust in non-co-ethnics)

Country	Cronbach Alpha	Valid Cases
Benin	.649	1165
Lesotho	.540	1160
Namibia	.526	1198
Madagascar	.512	1350
Zambia	.486	1200
South Africa	.443	2400
Senegal	.385	1199
Mali	.346	1244
Ghana	.335	1197
Ghana	.335	1197
Tanzania	.319	1304
Kenya	.254	1275
Nigeria	.227	2363
Malawi	.187	1197
Botswana	.167	1200
Mozambique	.143	1196

The scale is acceptably reliable in 4 countries with Benin showing the highest alpha value. The items do not scale well in Botswana, Nigeria and Mozambique. An important observation is that countries with higher alpha values are not necessarily those in which 'trust a lot' in non-co-ethnics and trust most people percentage scores are roughly equivalent.

Conclusion

If we consider the 3% margin of error to benchmark longitudinal reliability, the standard trust question is unreliable in 7 out of 10 countries. Also, the Malawian case seriously challenges the overtime reliability of the standard trust question, especially when there is little to no empirical evidence (at least as far as our data are concerned) that famine was associated with the 37% drop in trust levels. The Malawian trust scores present an interesting case for future research in which the factors explaining these huge variations could be explored.

Notwithstanding, it is possible that the stability of the trust scores can be more clearly demonstrated with data spanning more than two periods and with shorter intervals between the periods. In this regard, the World Values Survey data on South Africa give us a degree of confidence that the standard trust question obtain somewhat stable estimations of generalised trust over a period of time. However, the standard trust question does not alternate well with the other trust questions, thus leading to a change in the geography of trust within the African continent.

Chapter 5
The Validity of the Standard Trust Question as a Measure of Generalised Trust in Sub-Saharan Africa

FACE and CONTENT

As explained in chapter 2, some analysts contend that at a glance, the standard trust question appears to be measuring generalised trust. This is especially because it uses the phrases 'generally speaking' and 'most people' which presumably communicate its intention to capture a more general form of trust. Notwithstanding, I agree with Hooghe and Reeskens (2008:516) that "When looking at this question more closely, it can be argued that almost every word in it is problematic". The question is very ambiguous in that it does not specify who 'most people' are, allowing respondents to invoke possibly different interpretations. Another point of ambiguity relates to the answering option 'you must be careful in dealing with others'. While it is definitely not synonymous with 'trusting', this response option is also not the same thing as 'distrusting'. At the very least, this looks more appropriate as a middle answering option between the extremes of trusting and not trusting. This response category is likely to put in the same bracket non-trusters and people who are just cautious not necessarily distrustful. Also, the standard trust question treats the attitude of 'trust' as something that respondents either have or do not have, which is problematic because the true nature of trust is continuous.

The foregoing suggests limitations with regards to content validity as well. The content domain of the concept of generalised trust necessarily includes trust in socially distant others, understood as strangers, people of other nationalities and people of other ethnic and religious groups. Questions seeking to capture generalised trust must necessarily

specify one or more of these groups in order to have adequately covered its content. As some analysts have noted, apparent lack of content validity makes it quite difficult to meaningfully compare cross-national data on generalised trust (Nannestead 2008, Hooghe and Reskeens 2008, Newton et al 2011).

CONSTRUCT VALIDITY

Convergent and Discriminant Validity: The Standard Trust Question and other Interpersonal Trust Items

As intimated, much of the extant literature accepts that survey items for trust in relatives, neighbours and co-ethnics are measures of particularised/bonding trust while trust non-co-ethnics' questions measure generalised/ bridging trust (Freitag and Traunmuller 2009, Sturgis and Smith 2009, Delhey, Newton and Welzel 2011, Glanville and Paxton 2007). Given that the psychological distance is shortest for relatives and longest for non-co-ethnics, trust relatives item is the most basic indicator of particularised trust while non-co-ethnics item should indicate generalised trust. Accordingly, we would expect the scores for trust in relatives item to be considerably higher than those obtained by the trust in non-co-ethnics' item and trust in most people (discriminant validity). Most importantly, we would expect the percentage scores of trust in most people to be similar to or converge on trust in non-co-ethnics item (convergent validity).

Bratton, Mattes and Gymah-Boadi (2005) using Round 1 Afrobarometer data observed that "trust declines in step-by-step fashion from a high level for ones relatives, to progressively lower levels for neighbours, the members of one's ethnic group and fellow

nationals of other ethnic groups" (2005:195). Also their data[17] show that the percentage of respondents who trusted people from other ethnic groups 'a lot' was roughly equivalent to the percentage of those who agreed that 'most people can be trusted'. The differences between these response categories ranged from 1 to 2 percentage points in Tanzania, Mali, Uganda and Nigeria (Bratton et al 2005).

The same pattern can be observed in the Round 3 data as well. Across the 16 African countries, levels of trust are highest for relatives and lowest for non-co-ethnics as expected. In addition, the percentage scores for the 'trust in most people' item are more similar to 'trust a lot' in non-co-ethnics as **Table 3** illustrates.

Table 3: Trust Non- Co ethnics a lot versus Most People can be trusted in 16 Countries (in %)

Country	Trust Relatives a lot	Trust co-ethnics a lot	Trust neighbours a lot	Trust non co-ethnics a lot	Trust Most people
Ghana	49	25	28	16	16
Zambia	48	17	16	9	10
Mali	73	45	45	25	23
Kenya	40	18	15	7	10
Lesotho	30	18	15	10	16
Uganda	43	25	25	11	17
South Africa	51	19	22	9	15
Nigeria	39	14	19	6	13
Mozambique	74	40	41	29	22
Tanzania	60	31	36	22	13
Botswana	38	20	21	15	6
Benin	44	21	25	16	27
Namibia	55	12	18	11	27
Senegal	88	56	65	44	26
Madagascar	34	10	13	4	32
Malawi	69	55	56	38	7

[17] Data is for five countries in which both questions were posed in Round 1

If we interpret the convergence of the percentage scores for trust in most people and trust a lot in non-co-ethnics as an indication that the standard trust question indicates a more general form of trust, we should accept that the question is measuring bonding trust in countries where the percentage values for trust a lot in relatives, neighbours or co-ethnics in are much more similar to those pertaining to trust in most people. As shown in **Table 3**, the percentage score for trust in most people is more similar to that of trust relatives in Madagascar; the percentage values for trust most people are similar to those of trust in co-ethnics a lot in South Africa and Nigeria. Lastly, in Lesotho, Benin and Namibia the scores of trust in most people and trust neighbours a lot are more similar. Nevertheless, except in Benin and Namibia, country trust levels are highest for relatives, co-ethnics and neighbours and lowest for non-co-ethnics and most people.

Cross-national Correlations

The aggregate data show that the standard trust question has the weakest relationship with the trust relatives item ($r = .192$, $p < .01$) as would be expected. However, the strength of its relationship with the remaining trust items is almost equal: it has a correlation of $r = .234$ with the trust co-ethnics item, $r = .239$ with the non-co-ethnics item and $r = .248$ with trust in neighbours' item (all $ps < 0.01$). Trust neighbours and trust co-ethnics items have the strongest relationship ($r = .689$, $p < .01$). This is followed by the correlation between co-ethnics and non-co ethnics item ($r = .671$, $p < 0.01$) and relatives and neighbours ($r = .623$, $p < .01$). Since they represent the two extremes in the trust continuum, it is reasonable that trust non co-ethnics and relatives items have one of the weakest relationships ($r = .408$, $p < .01$).

A similar pattern of correlations has been found within individual countries as well. Table 4 shows the correlations between trust in most people and each of the other interpersonal trust items. All correlations are significant at .001.

Table 4: Correlations between the standard trust question and other trust items in Round 3				
COUNTRY	**Most People & Non-co-ethnics**	**Most People & Co-ethnics**	**Most people & Neighbours**	**Most people & Relatives**
Benin	0.482	0.477	0.447	0.336
Botswana	0.122	0.165	0.119	0.113
Ghana	0.213	0.225	0.232	0.162
Kenya	0.23	0.24	0.24	0.193
Lesotho	0.38	0.334	0.388	0.310
Madagascar	0.351	0.337	0.382	0.219
Malawi	0.139	0.118	0.145	0.096
Mali	0.215	0.217	0.212	0.119
Mozambique	0.081	0.149	0.179	0.11
Namibia	0.358	0.332	0.307	0.159
Nigeria	0.134	0.145	0.175	0.151
Senegal	0.242	0.266	0.239	0.089
South Africa	0.297	0.302	0.298	0.221
Tanzania	0.196	0.179	0.197	0.170
Uganda	0.217	0.197	0.245	0.215
Zambia	0.34	0.294	0.303	0.182

Except in Mozambique, Uganda and Nigeria trust in most people and trust in relatives' correlation coefficient is the weakest. In fact, it is noticeably smaller than the correlation coefficient of trust in most people and trust in non-co-ethnics items. This indicates some degree of convergent validity for the standard trust question. However, except in Zambia and Namibia, the differences between the correlations within each country are very small, suggesting that the question does not discriminate well between generalised and particularised trusters. I explore this further in the next section using factor analysis.

Factor Analysis

As I indicated, interpersonal trust is subdivided into generalised and particularised forms of trust. Bratton, Mattes and Gymah-Boadi (2005) posited that trust non-co-ethnics question

measures the same thing as the standard trust question, emphasizing that Afrobarometer survey respondents "are mentally picturing ethnic strangers when answering the general question about interpersonal trust (which refers to most people)[18] (Bratton et al 2005:195)". In this connection, one would expect to see the standard trust question loading with trust non-co-ethnics question as indicators of generalised trust. Similarly, trust in neighbours, relatives and co-ethnics' questions would be expected to load onto a factor for particularised trust

Accordingly, I conducted Maximum Likelihood factor analysis to ascertain whether indeed two latent variables of particularised and generalised trust underlie the differences in the responses to the five trust questions. As indicated, the underlying assumption is that the variation in the trust most people and trust in non-co-ethnics items are caused by construct of generalised trust while particularised trust is presumed to account for the common variance in trust relatives, co-ethnics and neighbours items.

Contrary to these expectations, the solution extracted a single factor with an eigenvalue of 2.46. However, as shown in the Factor Matrix below, the 'trust most people' item has the weakest relationship with the extracted factor.

Table 5: Factor Matrix of all Trust Items in Round 3

Trust Items	Extracted Factor(s)
	1
Trust co-ethnics	.852
Trust neighbours	.824
Trust non- co-ethnics	.729
Trust relatives	.663
Trust most people	.294
Eigenvalue	**2.46**

[18] Parenthesis original

TOTAL VARIANCE EXPLAINED	**57.271%**

The fact that the solution extracts a single factor seems to suggest that contrary to what has been found in other studies (e.g Uslaner 2002), generalised and particularised forms of trust may be strongly entwined as Whiteley (2000) has on the basis of similar results, concluded. Finding similar results, Glanville and Paxton (2007:240) concluded that because "bridging and bonding trust reinforce each other [they] are difficult to disentangle empirically". Delhey and Newton (2004:1) observed that "the difference between particularised and generalised trust may be one of degree rather than kind".

As Whiteley (2000) has argued, one reason why trust most people item has the weakest correlation with the extracted factor is its binomial scale, which possibly restricts its variance. But this can also mean that it is measuring something closely related but not identical to what the other items are measuring (see Kuenzi 2008). This is also supported by the fact that one of the suppressed (not extracted) factors has an eigenvalue of .896 which is pretty close to 1 (Kaizer's minimum eigenvalue for meaningful factors). This factor accounts for 18% of the total variance while the first (extracted) factor accounts for 57%. Internal consistency reliability analysis shows that all trust items cluster together in a reliable multi-item scale of interpersonal trust (α= .809). However, the scale reliability improves marginally when trust most people item is deleted (α= 849), while declining substantially when each of the other trust items are left out (α< .8). When both factor and reliability analyses were disaggregated by country, the results were not different to those obtained from the pooled data.

Although, the standard trust question does not load as expected, it is possible that it correlates strongly with other variables with which it is theoretically expected to correlate.

Generalised trust and associational membership (social networks) are said to be the two main aspects of social capital (Putnam 1993, 2000, 2007, Hooghe and Stolle 2003, Paxton 2007). Generalised trust provides the attitudinal aspect while networks provide the structural dimension of social capital (Norris, 2002). Given that these two variables are said to be closely linked as measures of a larger construct of social capital, they should be strongly correlated. Apart from associational membership, collective activism is also said to be associated with generalised trust (Putnam 2000). Trusters are more likely to participate in collective action initiatives because they expect generalised others to do the same.

In the following section, I explore the relationships between the standard trust question and the said variables as well their relationship with trust in non-co-ethnics question. I also explore how a bonding trust index performs in regard to the mentioned criterion variables. This index is made up of trust in relatives, neighbours and co-ethnics and has a pretty high reliability (α= .829). In fact, when we try and include trust non-co-ethnics' item in this bonding trust scale, Cronbach alpha declines to α= .739. This shows that indeed trust in non-co-ethnics item is rather distinct from the bonding trust items and should therefore be used independently as a measure of bridging trust.

CRITERION VALIDITY

Generalised Trust, Associational Membership and Collective Activism

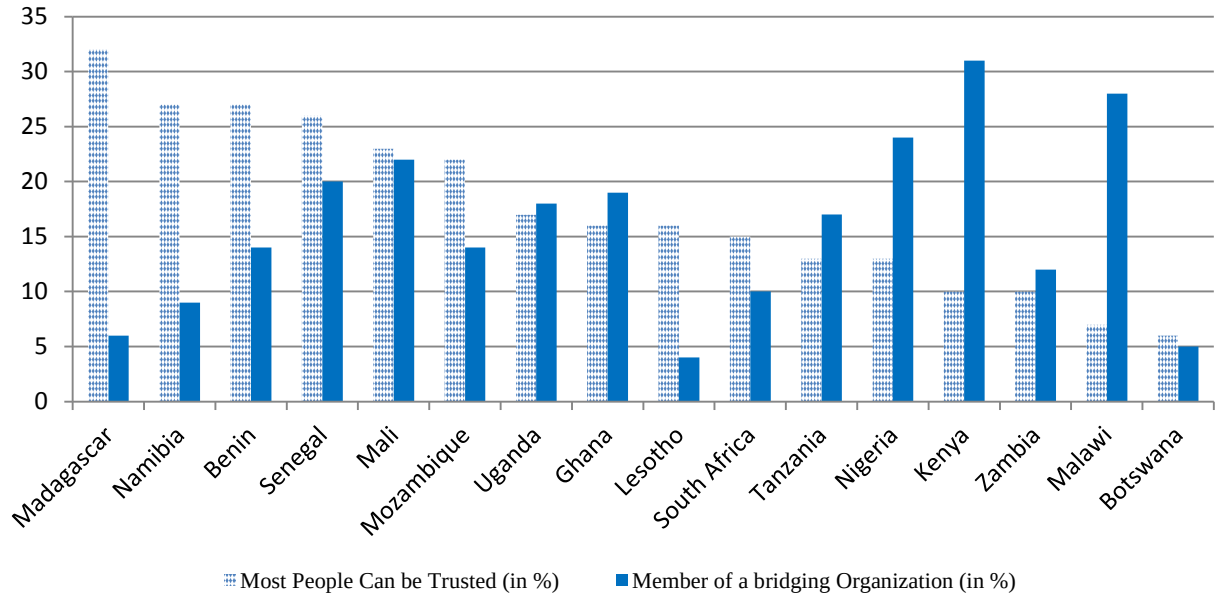
Afrobarometer asked respondents to state whether they were official leaders, active members, inactive members or not members of a) religious group, b) trade or farmers union, c) professional or business association or d) community development or self-help organizations. Whereas membership in religious associations indicates bonding social networks the remaining items presumably measure bridging associations (see Putnam 1993). As Pippa Norris (2002) has noted, bridging social networks are socially inclusive and porous, thus

building connections between heterogeneous groups. In other words, bridging social networks are what matters for social capital. Although Maximum likelihood factor analysis yields one eigenvalue larger than 1, religious membership item's loading is about half those of other items. Only 23% of religious membership variance is shared while the other items share each more than 50% of their variance. Moreover, the cronbach alpha shows that religious membership item does not scale well with the other items. Consequently, I exclude membership in religious organizations in the index of bridging associational membership.

The frequency distributions of these associational membership variables indicate that majority of Africans are members of bonding organizations. More than 70% of the 23093 people who participated in the Round 3 survey are members of some religious organization. On the contrary, only 18% of the participants reported that they were members of a community development or self-help associations; 21% said they were members of trade union or farmers associations while 13% said they belonged to professional or business associations. On average, about 16% of the respondents are members of the bridging organizations, which compares favourably with 15% trust level that the standard trust question obtained in Round 3. Looking at these figures, one may conclude that associational membership does predict trust levels in the African continent. However, this view is not supported by a more critical analysis as follows.

The relationship between trust in most people and membership in bridging associations is not clear when we use the 16 countries as units of analysis. As far as these variables are concerned, we have three clusters of countries **Figure 6** demonstrates.

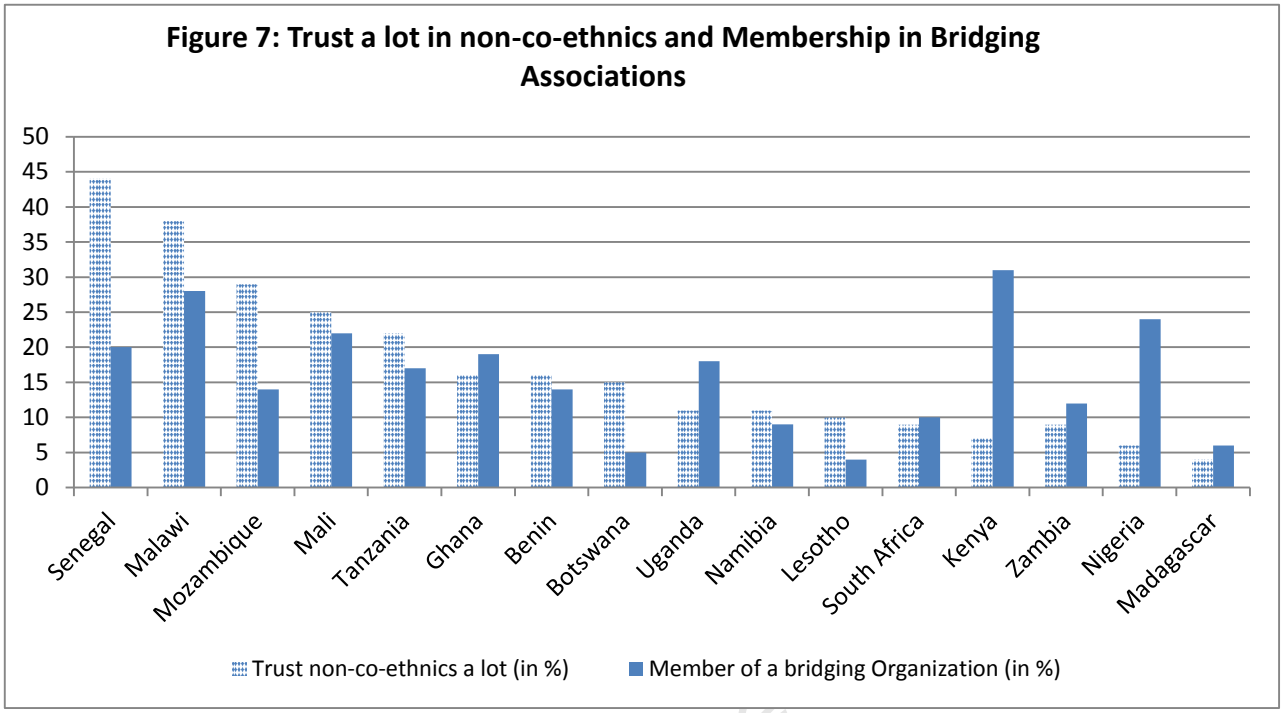
Figure 6: Trust in Most People and Membership in Bridging Associations



N=16

The first cluster is high associational membership, low trust countries (e.g Madagascar and Tanzania). The second cluster consists of countries like Kenya, Malawi, Nigeria and Tanzania where the percentage for membership in bridging organizations is bigger than the one for trust in most people. Lastly, there are countries in which the level of associational membership is almost equal to the level of trust in most people (e.g Botswana, Zambia, Tanzania and Uganda).

However, the trust in non-co-ethnics question obtains results that seem to be more consistent with the social capital theory. Except in Kenya and Nigeria, high percentage scores for trust in non-co-ethnics are accompanied by high percentage scores for membership in bridging associations. Similarly, as shown in in **Figure 7,** countries in which trust in non-co-ethnics is low, associational membership is also low.



N=16

The correlations between the country-level scores for trust in most people and membership in bridging associations are negatively correlated. However, trust a lot in most non co-ethnics is positively correlated with membership in bridging associations.

As shown in **Table 6,** trust in most people has a negative but statistically significant relationship with membership in business or professional associations and religious groups at the individual level**.** On the other hand, trust in non-co-ethnics' variable is relatively strongly, significantly and positively correlated with all the bridging associations' items. Similarly, the bonding trust index[19] has statistically significant correlations with all membership variables except membership in professional associations.

Table 6. Correlations of Trust and Associational Membership Variables

[19] Consisting of Trust in relatives, trust in co-ethnics and trust in neighbours items

	Professional Associations	Community Development Group	Farmers Association	Religious group
Trust Most People	**-.020****	-0.01	0.01	**-.043****
Trust non co-ethnics	**.015***	**.044****	**.062****	0.01
Bonding trust Index	-0.01	**.051****	**.066****	**.018****

N=23089
****.Pearson correlation is significant at the 0.01 level (2-tailed).**
***. Pearson correlation is significant at the 0.05 level (2-tailed).**

There is a weak, negative and non-significant relationship between trust in most people and bridging associations across most countries. However, there are notable exceptions: these variables have relatively strong, positive and statistically significant correlations in Zambia (r=.155), Lesotho (r=.111) and Senegal (r=.100) (all ps< .001).

Overall the relationship between trust in most people and membership in bridging associations contradicts what social capital theory maintains concerning the two variables. Conversely, trust in non-co-ethnics question does seem to do a better job producing expected linkages between generalised trust and membership in bridging association.

One would expect joiners of bridging associations to be more trusting than non-joiners (see Stolle 2008). However, an almost equal percentage of joiners (16%) and non-joiners (17%) felt that most people can be trusted. And similar results have been obtained across the 16 countries considered in this analysis. Conversely, joiners and non-joiners are slightly different with regards to trust in non-co-ethnics; 49% of joiners' said they trusted non-co-ethnics somewhat and a lot while 41% of non-joiners gave similar responses.

Generalised Trust and Civic Engagement (Collective Activism)

The Round 3 survey asked respondents how often in the past year, they (a) attended community meetings (b) Joined others to raise an issue (c) attended a protest march. Approximately 30% of Malawian and Beninese respondents felt that they would never attend a protest march while the rest said: they would if they had a chance' or they did attend a protest march 'once or twice', 'several times' and 'often'. In South Africa, Mozambique, Botswana, Namibia and Senegal, a little less than 50% of the respondents would never attend protest marches. In the remaining 9 countries, more than 60% of the respondents said they would never attend something like this.

Except in Mali, more than 70% of the respondents from each of the countries in this analysis have joined others to raise an issue or are willing to do so. Across the 16 countries, over 80% of the respondents have attended community meetings or would love to attend. By many standards, these figures indicate high levels of support for civic engagement in sub-Saharan Africa.

While trust most people and trust in non-co-ethnics items are significantly and positively correlated with the first two civic engagement items, trust in non-co-ethnics is also correlated with the variable about attending protest marches. Most importantly, the correlation coefficients for trust in non-co-ethnics' item are almost three times bigger than those pertaining to trust in most people. As shown in **Table 7**, the bonding trust index is significantly correlated with attending community meetings. This is not surprising given, as I indicated earlier that co-ethnics and neighbours seem to be interpreted as referring to fellow villagers or community members. It makes sense then, that attending or willingness to attend community meetings would increase as trust in community members increases.

Table 7. Generalised Trust and Civic Engagement Variables Correlations

	Attend community meetings	Raise issues with others	Attend Protest march
Trust non-co-ethnics	**.087****	**.047****	**.014***
Trust Most People	**.033****	**.018****	-0.01
Bonding Trust index	**.074****	.010	-.001

N=23079
****.Pearson correlation is significant at the 0.01 level (2-tailed).**
***. Pearson correlation is significant at the 0.05 level (2-tailed).**

The act of trusting is inherently risky. Generalised trust is clearly expressed when we are willing to co-operate with unknown others, especially in situations that may endanger our lives or that have no direct benefit to us as individuals. In this connection, the acid test for measures of generalised trust is assessing how they correlate with questions that convey an element of risk. Unlike the other civic activities, attending protest marches carries a huge element of risk in many African countries where there is a history of state sponsored violence against protesters. Further to that, it requires a lot of faith in unknown others to attend or be willing to attend protest marches since there are no guarantees that others will certainly turn up. The fact that trust non-co-ethnics correlates significantly with attending protest marches shows its superior validity compared to the standard trust question and the bonding trust index.

Considering the analysis presented in this section, trust in non-co-ethnics question seems to have superior predictive validity than the standard trust question. Each country score on trust in non-co-ethnics compare favourably with its scores on associational membership and civic engagement variables. And this is not the case when we use the standard trust

question. Having thus established the validity of the trust in non-co-ethnics question, it can be used (as a 'gold standard') to ascertain how far the answering options of most people can be trusted and you must be careful in dealing with others truly represent trusting and non-trusting attitudes in others.

Most People Can be Trusted versus You Must be Careful in Dealing with Others

As Soroka and colleagues have noted "saying you cannot be careful in dealing with others is not the same as saying that people in general cannot be trusted" (2006:106). If this was true, one would expect a slight or no difference between respondents who chose most people can be trust and those who said 'one must be careful in dealing with others', in terms how they answered trust in non-co-ethnics question.

Round 3 data show that the standard trust question is able to separate generalised trusters from their non-trusting counterparts. The respondents who feel that most people can be trusted (trusters) register significantly higher levels of trust in people from other ethnic groups than does the group which felt that one must be careful in dealing with others (non-trusters). Of those respondents who agreed that most people can be trusted, 10% said they did not trust members of other ethnic groups at all while 32% said they trusted them somewhat; 24% said they trusted them 'a little' and 34% said they trusted them a lot. Conversely, among those who agreed that one must be careful in dealing with others, 25% said they did not trust people from other ethnic groups at all, 38% said they trusted them a little while 25% said they trusted them somewhat.

Table 8: The standard Trust Question by Trust Non Co-ethnics Question

Trust Non-Co-ethnics	Most People can be trusted in % (Trusters)	You must be Careful in % (Non-trusters)

Not at all	10.4	25.2
A little	24.1	37.5
Somewhat	31.7	25.4
A lot	33.8	11.8
Total	100	100

As **Table 8** shows, the largest percentage within the trusters column belongs to the respondents who trust non-co-ethnics a lot and somewhat (65%) while the smallest portion is for the group which did not trust non-co-ethnics at all and a little (35%). The opposite of this is true for the 'non-trusters' group; the largest percentage belongs to the response categories of 'not at all' and 'a little' (63%) while the smallest pertains to 'somewhat' and 'a lot' (37%). Most importantly, the difference between the two groups is bigger at trust a lot column.

Conclusion

Overall, the standard trust question does seem to have a degree of validity, although there are weaknesses that cannot be ignored. On the positive side, the scores it obtains converge more on those of trust a lot in non-co-ethnics question than on any of the other trust items. However, the strength of its relationship with trust in non-co-ethnics question is almost equal to the one it has with trust in neighbours and trust in co-ethnics. A casual reading of this may lead one to conclude that the measure cannot differentiate between generalised and particularised forms of trust. However, further analysis indicates that the distinctions between generalised trust and particularised trust are difficult to prove empirically. In fact, the one thing that the high correlations between trust in non-co-ethnics and trust in neighbours and trust in co-ethnics items prove is that "generalized trust is a function of trust in more localized domains" (Glanville and Paxton 2008).

Notwithstanding the foregoing, the standard trust question does not perform very well in relation to its alternative- trust in non-co-ethnics question. This question has a strong, significant and positive association with measures of associational membership and civic engagement, which the standard trust question lacks in many instances.

Chapter 6
To What Extent Can Scholars Rely on the Standard Question about Trust in Most People? Discussions and Conclusions

Summary of Findings

The main concern of this study centred on the validity and reliability of the data obtained by the standard trust question and whether alternative measures provide significantly different levels of generalised trust in the in Sub-Saharan Africa. Secondary to that was whether alternative survey measures do a better job at reproducing expected linkages between generalised trust, ethnic diversity, democracy and economic development. This concluding chapter does three things: it summarises the findings on the study's main question, briefly explores the evidence regarding the subsidiary question and provides recommendations for future research.

The study has found that the standard trust question is reasonably reliable when used alone as an estimate of generalised trust. This is because apart from Malawi, Round 1 and Round 3 trust levels data are generally similar. Moreover, the 'stability' of the trust scores improves considerably when we consider comparable data from the World Values Survey. As noted, test-retest analysis indicates that when the interval between the surveys is shorter or when we consider more data points over a period of time, the standard trust question yields strikingly similar estimates of generalised trust. Apart from providing evidence for longitudinal reliability, this strongly suggests that generalised trust seems to be an enduring cultural attribute.

These findings seem to be reinforced by the fact that the overall trust estimates obtained by the 'trust in most people' and 'trust non-co-ethnics a lot' items fluctuate around

the same values (between 15% to 17%) for the pooled Round 3 data. Yet, further analysis suggests that the two questions may not be equivalent measures as they produce quite different results at country level in Round 3.

Some analysts may argue that it is unfair to take this seeming lack of equivalence as a sign that the standard trust question is unreliable, especially when the reliability of trust in non-co-ethnics has not been established. To address this concern, I compared these two measures against the data obtained by the 'trust in fellow citizens'' question from Round 4, which acted as a common point of reference that enabled me to decide whether the standard trust question or 'trust in non-co-ethnics' question is less reliable. Using trust in fellow citizens as a baseline, the standard trust question appears to be less reliable than trust in non-co-ethnics question. In addition, the standard trust and trust in non-co-ethnics do not produce a reliable two item scale in several countries.

It is certainly disturbing that the standard trust question reports high or low levels of trust in countries where all other measures of trust (including bonding trust items) seem to suggest otherwise. As this study has shown, particularised trust and generalised trust are so strongly entwined that country scores on each essentially correspond. And this makes sense theoretically, for as Newton and Zmerli (2004:175) have noted, it is difficult to conceive of high scores on generalised trust but low scores on particularised trust "since someone who trusts in general must logically trust in particular". As such, it is definitely contradictory that the standard trust question presents Madagascar as a society with highest trust levels when all other measures of trust (including bonding trust items) suggest the opposite. It is also illogical that Malawi could rank so low on the standard trust question yet so highly on the other measures of trust (including bonding trust items).

Moreover, the trust in non-co-ethnics question seems to have more predictive leverage over the standard trust question. It has a highly significant and relatively strong individual level correlation with measures of civic engagement and associational membership. Also most countries that exhibit higher scores on 'trust in non-co-ethnics' a lot have corresponding scores on measures of associational membership and civic engagement. It would seem therefore that overall the trust in non-co-ethnics question is a more valid measure of bridging or generalised trust than the standard trust question.

The final issue that remains is whether the standard trust question produces the expected linkages with ethnic diversity, democracy and economic development despite its challenges as reviewed. In the next section, I explore the bivariate correlations between each of the three measures of generalised trust and these societal level variables.

Generalised Trust, Ethnic Diversity, Democracy and Economic Development

Generalised trust is often seen by many political scientists as a property of whole systems (Putnam 2000, Newton 2001). In this regard, it is expected to correlate strongly with other societal properties such as ethnic diversity, democracy and economic development. Indeed, several studies have found strong empirical linkages between generalised trust and ethno-linguistic diversity (Norris 2002, Bjørnskov 2006, Putnam 2007, Letki 2008); generalised trust and economic development (Zak and Knack 2001, Knack and Keefer 1997, Whiteley 2000); generalised trust and levels of democracy (Inglehart and Welzel 2010; Delhey and Newton 2005).

As shown in **Table 9**, the bivariate correlations between the three measures of generalised trust and each of these societal-level attributes are generally consistent with the

extant literature. Despite that they are not significant, the direction and the streghth of correlations are similar across the three trust items. For example, ethnic diversity is negatively correlated with the three measures of generalised trust while the polity scores and GDP growth rates are both positively correlated to these measures as theoretically predicted.

Table 9: Correlations of the Trust Items and Macro Level Variables

	GDP Growth (2005)	GDP per Capita (2005)	2005 Polity Scores	Ethnic Diversity (PREG index)
Trust most people	.252	-.266	.074	-.238
Trust fellow citizens a lot	045	-.376	.185	-.241
Trust non co-ethnics a lot	.105	-.207	.148	-.303

N=16
****.Pearson correlation is significant at the 0.01 level (2-tailed).**
***. Pearson correlation is significant at the 0.05 level (2-tailed).**

These results indicate that as far as reproducing expected linkages with sociatal level attributes is concerned, there is no clear 'winner' among the three measures of generalised trust. While some trust measures are more correlated with one or more of these societal level attributes than others, none of the correlations is consistently superior. For example the standard trust question has the strongest correlation with GDP growth rates but the weakest relationship with the polity scores. The opposite is true for trust in fellow citizens' question. Trust in non-co-ethnics has the highest correlation with ethnic diversity but the lowest with GDP per capita (adjusted for purchasing power parity).

In Chapter 1, I mentioned that Botswana's level of trust does not correspond with its societal level characteristics. With its level of per capita GDP, democracy and relative ethnic homogeneity, Botswana is expected to be a social capital paradise. But this country ranks

consistently low on all measures of generalised trust. As an outlier, Botswana may distort some of the correlations. Indeed, when Botswana is removed from the analysis, there are noticeable improvements in the correlation between ethnic diversity and generalised trust across all measures but particularly on the standard trust question. The correlation between trust in most people and ethnic diversity improves from a non-significant r= -.238 to a statistically significant and sizable r= -.539 (p<. 05). The correlation for trust in fellow citizens improves by 14 points (r=-.387) while that of trust non-co-ethnics correlation gains 8 points (r=-.383). However, the two correlation coefficients remain non-significant.

Notwithstanding, these results should be interpreted cautiously because none of the correlation coefficients are large or statistically significant, at least when compared to those reported in other studies (Morrone et al 2009, Inglehart and Welzel 2010). While informative, these results are certainly affected by the small number of the units of analysis and the restricted variation produced by Africa-only data. In addition to increasing the number of countries, future studies could also explore these relationships over time. This will not only improve the number of observations but will also reveal whether the correlations are consistent over time.

Apart from that, it is possible that some societal level factors are more important for generalised trust in certain countries while being less influential in others. It is possible that ethnic diversity affects generalised trust in certain societies (or under certain conditions) than it does in others. For example, it could be that ethnic diversity impedes the development of trust in countries with a history of state-sponsored ethnic violence or relatively high levels of ethnic-based nepotism. We can gain a deeper understanding of these relationships if we control for these and other possibly mediating factors.

The negative correlation of GDP per capita and each of these measures of trust challenges previous research findings and calls for further investigation. There could be several reasons why GDP per capita would correlate negatively with trust. One of them could be an intervening effect of economic inequality as other studies have noted (Uslaner 2007).

Conclusion and Recommendations for Future Research and the Afrobarometer Surveys

To be sure, the standard trust question is measuring interpersonal trust. However, it is not clear what type of interpersonal trust this is. In other words, it is certainly a reliable measure of trust in most people, but it is not clear what this means. It does not consistently mean non-co-ethnics; neither does it mean bridging trust if that is seen as being conceptually distinct from bonding trust.

Despite the fact that trust in non-co-ethnics question (and probably trust in fellow citizens' question) has superior validity than the standard trust question, the latter is still a valuable measure of interperonal trust and should not be excluded from the Afrobarometer surveys. Since this question has been used extensively as part of several international surveys, its data provide an opportunity to compare many countries and regions over a period of time. In addition to that and most importantly, since trust in most people scores are considerably stable over a period of time, they enable scholars to identify the forces and consequences of trust over a longer period of time. Large N studies can benefit from the massive trust data generated by standard trust question, even if that data are less than perfect.

Notwithstanding, for studies that do not track trust levels over time for example, these alternative questions should be preferred over the standard trust question as they are appear to be more accurate measures of generalised trust. Also, rather than alternate them, the

Barometer Surveys should include trust in non-co-ethnics' question and trust in fellow citizens questions in one survey so that scholars can use them as composite score of generalised trust. How these questions are answered in different countries could also reveal whether or not and to what extent trust non-co-ethnics question is affected by factors such as social desirability. In addition, including more interpersonal trust items in the factor analysis may yield different results to the ones obtained in this study. This may also help to explore the African respondents' notion of 'most people' and how it differs cross-nationally.

Bibliography

Alesina, A. and E La Ferrara. 2002. "Who Trust Others?" *Journal of Public Economics, 85(2): 207-304.*

Algann, Y., Cahuc, P. 2010. "Inherited Trust and Growth". *American Economic Review*, 100(5): 2060–92

Arrow, K. 1972. "Gifts and Exchanges". *Philosophy and Public Affairs*, Vol 1: 343-362.

Beugelsdijk, S. 2008. "Trust, Institutions and the 'Generally Speaking Question': A reply to Uslaner. *Cambridge Journal of Economics*, vol. 32, 633- 638

Beugelsdijk, S. 2006. "A Note on The Theory and Measurement of Trust in Explaining Differences in Economic Growth", *Cambridge Journal of Economics*. 30: 371–87

Bjørnskov C. 2007. "Determinants of generalized trust: A Cross-Country Comparison. *Public Choice* 130:1–21

Brehm, John and Wendy Rahn. 1997. "Individual-Level Evidence for the Causes and Consequences of Social Capital.". *American Journal of Political Science* 41(3): 999-1023.

Bratton, Michael, R. Mattes, and E. Gyimah-Boadi. 2005 *Public Opinion, Democracy, and Market Reform in Africa*. New York: Cambridge University Press

Campbell, D.T. and D.W. Fiske. 1959. "Convergent and Discriminant Validation by the Multitrait-Multimethod Matrix". *Psychological Bulletin, 56, 81-105*

Carmine E and R. Zeller. 1979. *Reliability and Validity Assessment*, Beverly Hills, CA: Sage Publications

Carpini M. D and S Keeter. 1993. "Measuring Political Knowledge: Putting First Things First" *American Journal of Political Science,* Vol. 37, No. 4, 1179- 1206

Coleman, J. 1990. *Foundations of Social Theory*. Cambridge, MA: Belknap Press.

Collier, P. 2001. "Implications of Ethnic Diversity*." Economic Policy* 16 (April): 129-66.

Collier P and R. Adcock .2000. Measurement Validity: A shared Standard for Qualitative and Quantitative Research. *American Journal of Political Science*. 95 (3), 529-546

Dasgupta, P .1988. "Trust as a Commodity", in D. Gambetta, ed., *Trust: Making and Breaking Cooperative Relations* (Oxford: Basil Blackwell)

Devereux, S., and Z. Tiba, 2007 "Malawi's First Famine: 2001–2002," in S. Devereux, ed., *The 'New Famines': Why Famines Persist in an Era of Globalisation* Routledge: London

Delhey J, Newton K. 2005. "Predicting cross-national levels of social trust: global pattern or Nordic exceptionalism?" *European. Sociological Review.* 21:311–27

Diener E, R Inglehart and L. Tay 2012. "Theory and Validity of Life Satisfaction Scales". *Social Indicators Research*. Springer Science + Business Media.

Elkins Z, 2000. "Gradations of Democracy? Empirical Tests of Alternative Conceptualizations". *American Journal of Political Science*. Vol 44, number 2, 287-294

Freitag M and R Traunmüller .2009. "Spheres of Trust. An Empirical Analysis of the Foundations of Particularised and Generalised Trust". *European Journal of Political Research 48:782-803*

Fukuyama, F. 1995. *Trust: the social virtues and creation of prosperity.* London: Hamish Hamilton.

Glaeser, E.L., D. Laibson, J., Scheinkman, C. Soutter. 2000. Measuring trust. *Quarterly Journal of Economics*, *115*, 811–846.

Glanville, J. L., P. Paxton .2007. "How do We Learn to Trust? A Confirmatory Tetrad Analysis of the Sources of Generalized Trust", *Social Psychology Quarterly* 70(3), 230-242

Higgins, P.A. and A.J Straub .2006. "Understanding the Error of our Ways: Mapping the Concepts of Validity and Reliability". *Nursing Outlook*, 54 (1) pp. 23-29.

Hooghe, M and T Reeskens. 2007. "To Trust or Not To Trust: That's The Question: The Measurement of Generalized Trust as a Dichotomous or Continuous Variable." *Presented at the 2nd Conference of the European Survey Research Association,* Prague, June.

Inglehart, R. 1999. "Trust, Well-Being and Democracy". In M.E Warren (ed) *Democracy and Trust*. Cambridge: Cambridge University Press

Inglehart, R. and C Welzel. 2010. "Changing Mass Priorities: The Link Between Modernization and Democracy". *Perspectives on Politics*, 551–567.

Johnson B, H. Reynolds H and J. Mycoff. 2008. *Political Science Research Methods*. CQ Press: United States

King, G, J. Murray, J. Salomon and A. Tandon. 2004. "Enhancing the Validity and Cross-Cultural Comparability of Measurement in Survey Research," *American Political Science Review,* 98(1), pp. 191-207

Knack, S., and P. Keefer. 1997. "Does Social Capital Have an Economic Pay-Off? A Cross-Country Investigation". *Quarterly Journal of Economics*. pp 1251–1288.

Miller, A. S. and Mitamura, T. 2003. "Are Surveys on Trust Trustworthy?" *Social Psychology Quarterly* 66 (1) 62–70

Morrone, A., N. Tontoranelli and G. Ranuzzi 2009, "How Good is Trust? Measuring Trust and its Role for the Progress of Societies", *OECD Statistics Working Papers*, 2009/03, OECD Publishing.

Nannestad, P. 2008. "What Have We Learned About Generalized Trust, If Anything?" *Annual Review of Political Science*, 11(1), 413-436.

Narayan, D and M Cassidy. 1999. "A Dimensional Approach to Measuring Social Capital: Development and Validation of a Social Capital Inventory." *World Bank Poverty Reduction and Economic Management Network*. Washington, D.C.

Narayan, D. and L. Pritchett (1999), "Cents and Sociability: Household Income and Social Capital in Rural Tanzania", *Economic Development and Cultural Change*. 47, 871-889.

Newton, K. 2001, 'Trust, Social Capital, Civil society, and Democracy', *International Political Science Review*. 22 (2) 201-14.

Newton Kenneth .2007. "Social and Political Trust". In Dalton Russell and Han-Dieter Klingemann (ed) *The Oxford Handbook of Political Behaviour*. Oxford

Offe C .1999. "How Can We Trust Our Fellow Citizens?" In Warren M.E, editor. *Democracy and Trust.* Cambridge: Cambridge University Press

Paxton Pamela. 2007. "Association Membership and Generalized Trust: A Multilevel Model across 31 Countries". *Social Forces* 86:47–76.

Posner Daniel N. 2004. "Measuring Ethnic Fractionalization in Africa." *American Journal of Political Science* 48 (October): 849-63.

Putnam Robert D. 1993. *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton: Princeton University Press.

Putnam, R. 2000. *Bowling Alone. The collapse and revival of American community.* New York: Simon &Schuster

Reeskens, T & Hooghe, M. 2008. "Cross-cultural Measurement Equivalence of Generalized Trust. Evidence from the European Social Survey (2002 and 2004). *Social Indicators Research, 85*, 515-532.

Rothstein, B. 2005. Social Traps and the Problem of Trust. Cambridge: *Cambridge University Press*.

…. and D. Stolle. 2003. Social Capital, Impartiality and the Welfare State: An Institutional Approach". In M. Hooghe & D. Stolle (eds), *Generating social capital: Civil society and institutions in comparative perspective*. New York: Palgrave Macmillan

… and E.M. Uslaner. 2005. "All for All: Equality, Corruption, and Social Trust."*World Politics* 58(October): 41:72.

Simmel G. 1950. *The Sociology of Georg Simmel* (K. Wolff, trans. and ed.). Glencoe, IL: The Free Press.

Smith S. 2010. "Race and Trust". *Annual Review of Sociology.* 36: 453- 475

Smith, T. W. 1997. "Factors Relating to Misanthropy in Contemporary American society". *Social Science Research.* 26: 170–96

Soroka, S N., J F. Helliwell, and R Johnston. 2006. "Modeling and Measuring Trust." In F Kay and R Johnston (eds) *Diversity, Social Capital, and the Welfare State*. Vancouver: University of British Columbia Press

Sturgis, P and P Smith. 2010. "Assessing the Validity of Generalized Trust Questions: What Kind of Trust Are We Measuring?" *International Journal of Public Opinion Research* 22:74–92.

Torpe L, Lolle H .2011. "Identifying Social Trust in Cross-Country Analysis: Do We Really Measure the Same?" *Social Indicators Research* 103: 481–500

Uslaner. E.M. 2012. "Measuring Generalised Trust: In Defence of the Standard Trust Question*"*. In Lyon F, G. Mollering and M. Saunder. (eds). *Handbook of Research Methods on Trust*. Northampton: Edward Elgar Publishing

Uslaner, E. M 2002. *The Moral Foundations of Trust*. New York, Cambridge University Press

Uslnaer E.M 2008. "The Foundations of Trust: Micro and Macro". *Cambridge Journal of Economics*, Vol. 32.

Uslaner E.M 2008. "The Generalized Trust Questions in the 2006 ANES Pilot Study." In Kathleen M. McGraw and John Aldrich (eds). *The Book of Ideas.*

Uslaner E.M 2009. "Is Eleven A Lucky Number? Measuring Trust and the Problem of Clumping". *Unpublished Manuscript*, University of Maryland- College Park

Uslaner E.M.2008. "Where You Stand Depends on Where Your Grandparents Sat: The Inheritability of Generalized Trust". *Public Opinion Quarterly*, 72(4) pp 725–740
.

Whiteley PF. 2000. "Economic Growth and Social Capital". *Political Studies.* 48:443–66

Wilson, R. K. and C.C Eckel. 2009. "Trust and Social Exchange". In Druckman, J. N, Green, D. P., Kuklinski, J. H., and Lupia, A. (Eds) *Handbook of Experimental Political Science*. Cambridge University Press, Boston

Yamagishi, T., M. Kikuchi, and M. Kosugi. 1999. "Trust, Gullibility, and Social Intelligence". *Asian Journal of Social Psychology,* 2, 145–161

Zak, P., and S. Knack, 2001 "Trust and Growth." *Economic Journal*, 111. 295–321.

Zerfu D, P. Zikhali and I. Kabenga. 2008. "Does Ethnicity Matter for Trust? Evidence from Africa". *Journal of African Economies,* 18: 153-175

Zmerli, S and K Newton. 2008. "Social Trust and Attitudes Towards Democracy". *Public 36 Opinion Quarterly, 72:706-724.*

Appendix 1: Variables Used in the Study

Table A1 Item-Total Statistics [all trust items]

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Trust non co-ethnics	5.9736	8.154	.638	.759
Trust co-ethnics	5.6530	7.657	.743	.723
Trust neighbours	5.5796	7.649	.740	.724
Trust relatives	5.1214	8.599	.588	.775
Trust Most People	6.9589	10.851	.276	.849

Cronbach Alpha for five items: .809

Table A2: Associational Membership Variables

Now I am going to read out a list of groups that people join or attend. For each one, could you tell me whether you are an official leader, an active member, an inactive member, or not a member:
A.A religious group (e.g., church, mosque)
B. A trade union or farmers association
C. A professional or business association
D. A community development or self-help association

Scale: 0= Not a member, 1=Inactive member, 2=Active Member, 3=Official Leader, 9= Don't Know

Table A3: Civic Engagement Variables

Here is a list of actions that people sometimes take as citizens. For each of these, please tell me whether you, personally, have done any of these things during the past year. *[If Yes, read out options 2-4]*. **If not, would you do this if you had the chance?** *[For No, read out options 0 and 1]*

A. A religious group (e.g., church, mosque)
B. A trade union or farmers association
C. A professional or business association
D. A community development or self-help association

Scale: 0= No, would Never do this; 1= No, would if had a chance, 2= Yes, Once or Twice, 3=Yes, Several Times, 4= Yes, Often

Table A4. Maximum Likelihood Factor Matrix for Associational Membership Variables

	Factor
	1
Community Development Group	.601
Business Association	.560
Famers Association	.589
Religious group	.301
Eigenvalue	**1.797**
Total Variance	**27.82**

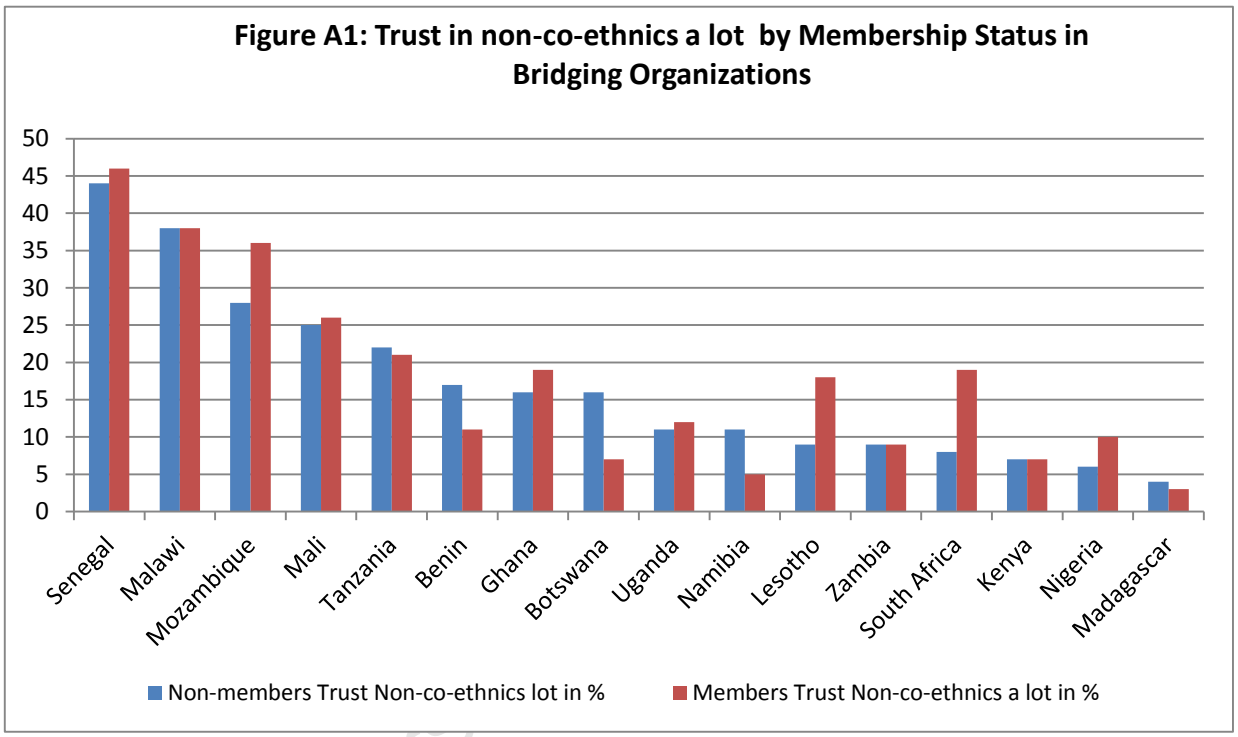
Extraction Method: Maximum Likelihood.

Table A5: Item-Total Statistics (Associational Membership Items)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Religious group	1.0754	2.841	.236	.600
Famers Association	1.9890	2.842	.398	.451
Business Association	2.1238	3.195	.383	.479
Community Development Group	1.8599	2.566	.413	.432

Cronbach Alpha for 5 items .543

Appendix 2: Additional Charts



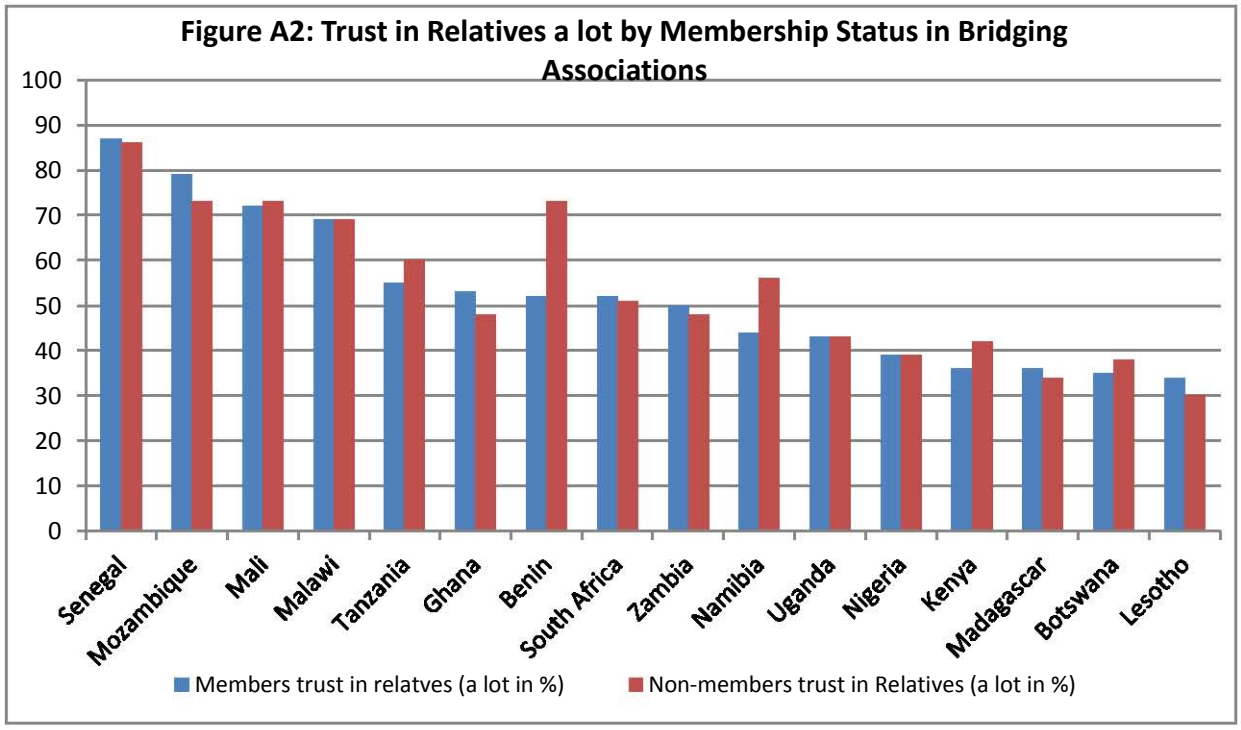


Figure A2: Trust in Relatives a lot by Membership Status in Bridging Associations
100
90
80
70
60
50
40
30
20
10
0
Senegal
Mozambique
Mali
Malawi
Tanzania
Ghana
Benin
South Africa
Zambia
Namibia
Uganda
Nigeria
Kenya
Madagascar
Botswana
Lesotho
Members trust in relatves (a lot in %)
Non-members trust in Relatives (a lot in %)

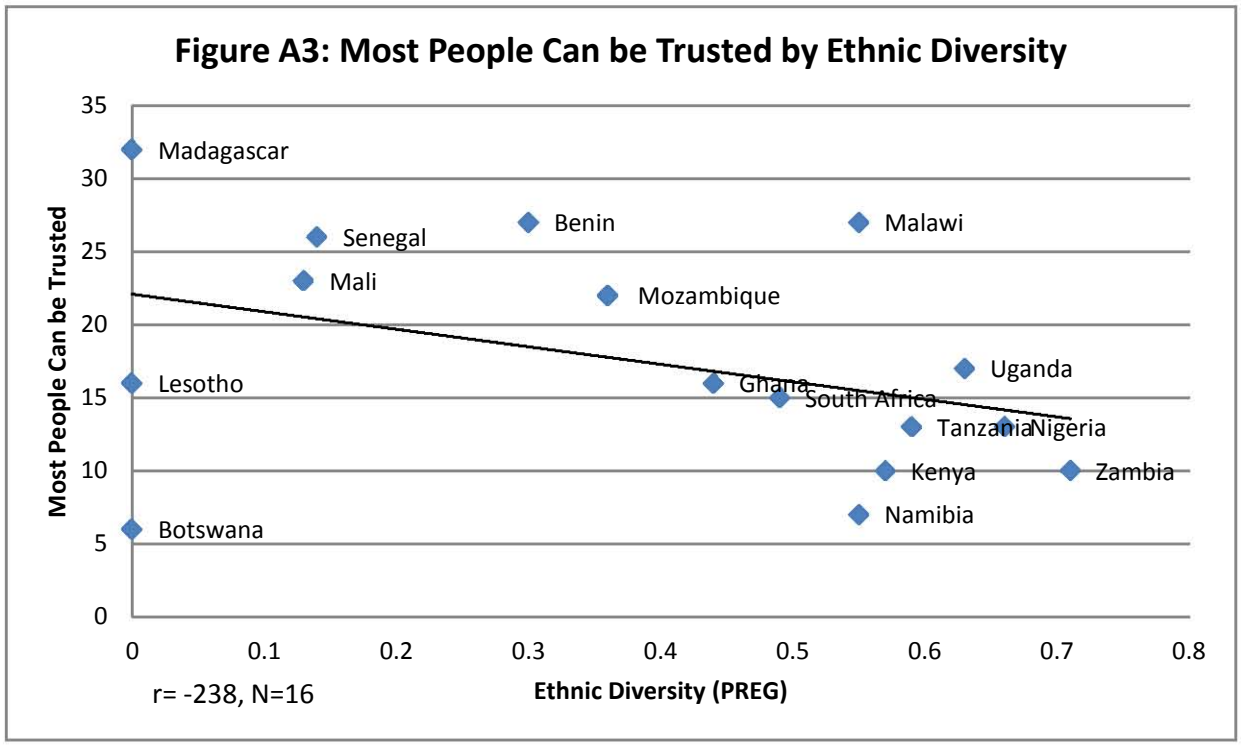


Figure A3: Most People Can be Trusted by Ethnic Diversity
Most People Can be Trusted
35
30
25
20
15
10
5
0
Madagascar
Senegal
Benin
Malawi
Mali
Mozambique
Uganda
Lesotho
Ghana
South Africa
Tanzania
Nigeria
Kenya
Zambia
Namibia
Botswana
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
r= -238, N=16
Ethnic Diversity (PREG)

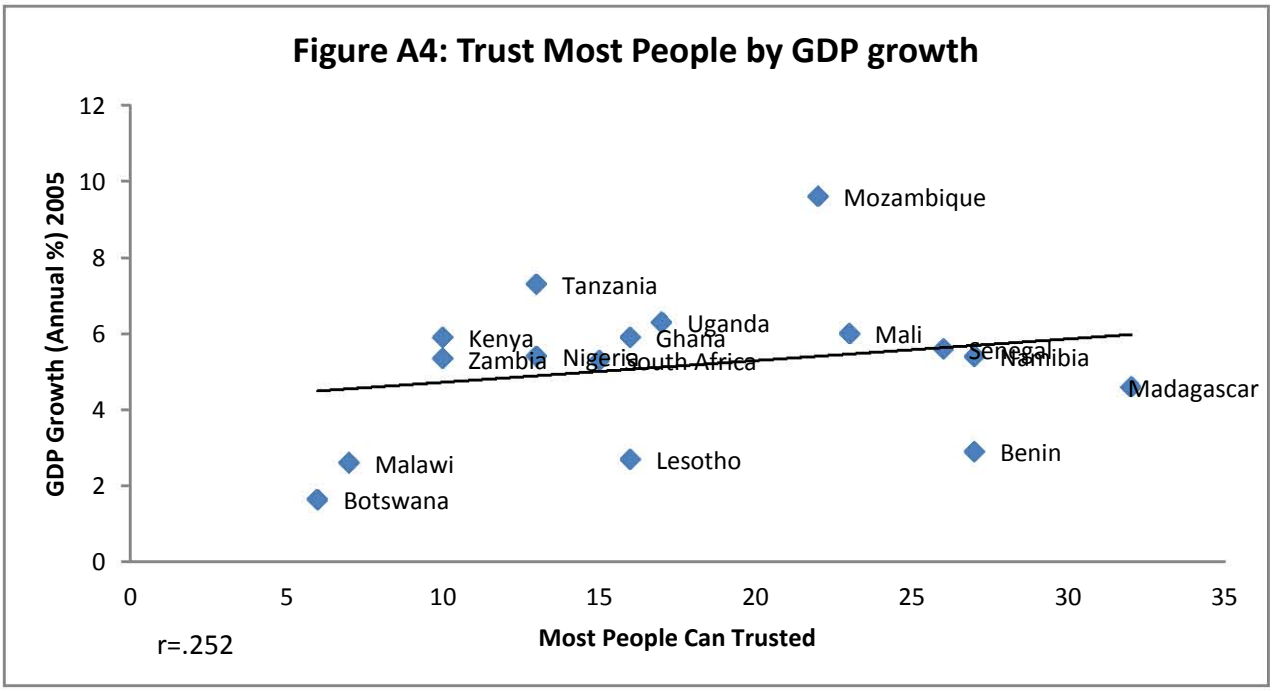


Figure A4: Trust Most People by GDP growth
GDP Growth (Annual %) 2005
Most People Can Trusted
r=.252
Mozambique
Tanzania
Uganda
Kenya
Ghana
Mali
Zambia
Nigeria
South Africa
Senegal
Namibia
Madagascar
Malawi
Lesotho
Benin
Botswana

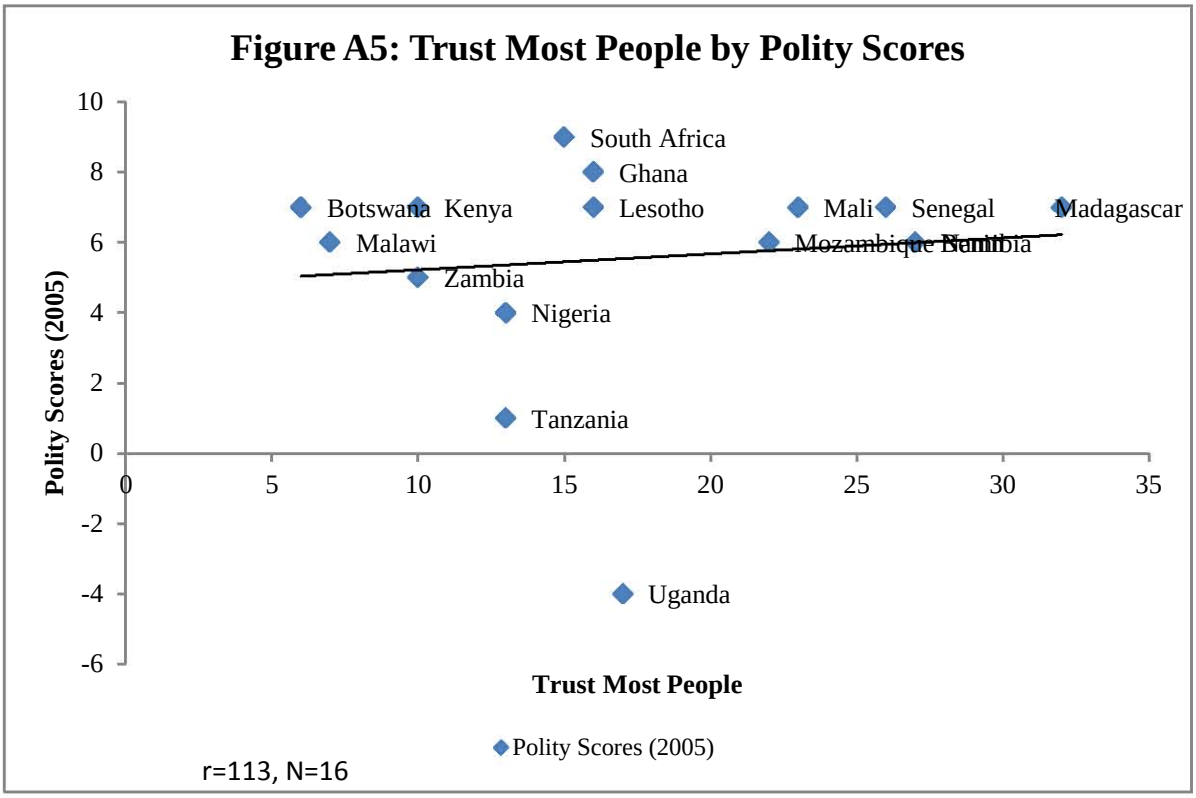


Figure A5: Trust Most People by Polity Scores
Polity Scores (2005)
Trust Most People
r=113, N=16
South Africa
Ghana
Botswana
Kenya
Lesotho
Mali
Senegal
Madagascar
Malawi
Zambia
Nigeria
Tanzania
Uganda

[i] Contrary to other measures of ethnic diversity – which simply considers all ethno-linguistically distinct groups. Posner's ethnic fractionalisation index accounts for politically relevant ethnic groups. Posner argues that compared to others, this index does a much better job of accounting for effects of ethnic fractionalisation. Like other ethnic diversity indexes, zero represents absolute ethnic homogeneity and 1 absolute ethnic diversity.