

Measuring Women's Agency

Aletheia Donald, Gayatri Koolwal, Jeannie Annan, Kathryn Falb, and Markus Goldstein

June 2016

Improving women's agency, namely their ability to define goals and act on them, is crucial for advancing gender equality and the empowerment of women. Yet existing frameworks for women's agency measurement — both disorganized and partial — provide a fragmented understanding of the constraints women face in exercising their agency. Such empirical limitations restrict design of quality interventions and evaluation of their impact. In this paper, we propose a multi-disciplinary framework containing the three crucial dimensions of agency: goal-setting, perceived control and ability (“sense of agency”), and acting on goals. For each dimension, we i) review measurement approaches used in the literature and what we know about their relative quality, ii) present new empirical evidence from Sub-Saharan Africa: validating vignettes as a measurement tool for goal-setting, analyzing gender differences in “sense of agency” as well as similarities between different “sense of agency” constructs, and investigating what spousal disagreement over decisionmaking roles can tell us about the intra-household process of acting on goals, iii) highlight priorities for future research to improve the measurement of women's agency.

1. Introduction

Achieving gender equality is a critical component underscoring the successful development of countries and communities. Not only does gender equality impact women's individual well-being, resulting in gains such as increased labor force participation or improved health outcomes, gender equality also imparts benefits to future generations as women and their children may become more educated or have access to more resources, such as health services (World Bank 2012).

Despite gains in gender equality in recent decades, there are still disparities in economic, health, and social domains between men and women. For example, the 2012 World Development Report asserts that gender equality gaps persist in the “excess deaths of girls and women, disparities in girls’ schooling, unequal access to economic opportunities, and differences in voice in households and in society”. For these reasons, among others, gender equality is a standalone goal of the Sustainable Development Goals launched in 2015.

Improving women's agency is crucial for shrinking these gender disparities and advancing gender equality and empowerment of women. Agency is important intrinsically (Fernandez et al. 2015) as well as having instrumental value to other dimensions of empowerment, including the transformation of resources into well-being outcomes. For instance, literature has documented linkages between women's agency and family planning, health care utilization, child nutritional status and agricultural productivity, among others (Do and Kurimoto 2012; Furuta and Salway 2006; Quisumbing 2003; Shroff et al. 2008). However, understanding of women's agency and how it influences women's well-being and development outcomes is complicated by differences in conceptualization and measurement across studies.

In our review of how “women's agency” is conceptualized across studies, the majority of studies that emerged discussed women's agency through a normative lens or through qualitative research rather than through empirical quantitative measurement. Most commonly, quantitative assessments captured agency via decision-making alone. Other studies have used proxy indicators such as women's education and exposure to media in addition to decision-making. However, education or other demographic variables are more accurately conceptualized as ‘resources’, and do not explicitly parse out agency as a unique process in empowerment. These findings are confirmed by a recent systematic review of women's agency as it relates to children's immunization status, where the authors found that agency was often termed interchangeably with autonomy or empowerment and was most commonly measured through decision-making modules, freedom of movement questions, or other items such as control over spending (Thorpe

et al. 2016). For example, in the papers cited above linking agency to improved outcomes, women's agency was also termed empowerment, autonomy, or position, and assessed via decision-making modules, engagement in household discussions or level of contribution to household income depending on the study. Moreover, the measurement of agency was also found to vary *within* given conceptualizations. For example, women's participation in household decision-making - the most commonly operationalized construct of agency - is measured differently across studies.

Most commonly used conceptualizations and measures also fail to capture agency's defining components. For instance, agency's psychological dimension is often overlooked; yet agency frameworks need to account for how decision-making processes may vary across time (i.e., with organic changes in personal goals) as well as across spaces (i.e., with decisions at the home or community levels) (Campbell and Mannell 2016; Ibrahim and Alkire 2007), or how they relate to the decision-making arrangements women themselves regard as personally valuable. The existing state of women's agency measurement - both disorganized and partial - results in a reduced understanding of constraints women face in exercising agency and diminished ability to design interventions and understand intervention success or failure.

This paper examines the measurement of agency through the lens of how women arrive at different decisions, based on their own preferences and goals, and proposes a framework for the constructs needed to measure agency. In order to address the challenges in current measurement, we propose a unified, multi-disciplinary conceptualization, including three crucial elements of agency: goal-setting, ability to achieve goals, and acting on goals. We then provide insight into how each component of agency has been measured, what we know about the relative quality of these existing measurement methods and their adaptation to Sub-Saharan African contexts, and provide an overview for future research. Ultimately, improvement in the measurement of women's agency will provide greater understanding of when and how women have the ability to influence their own lives, and those of their families and communities, across different spheres.

2. Conceptualizing Agency

Definition of agency and related concepts

Following Kabeer (1999), we define agency as the **“ability to define one’s goals and act on them.”** This stems from Sen’s (1985) capabilities approach, which defines “‘agency freedom’ as the freedom to achieve whatever the person, as a responsible agent, decides he or she should achieve.” The individual may not actually act, or create an underlying shift in power relations, but is able, through direct decisionmaking processes or other indirect means, to step out of routine behaviors to try to change one’s environment or outcomes. Following Sen (1999), these can span economic, social, and political actions; empirically (and from a policy perspective) these actions would vary across contexts. Agency can also be exercised at the individual, household, and community levels.

Our definition of agency is therefore the same as the main definitions in the literature; since Sen’s and Kabeer’s work, there have been several additional, albeit very similar, definitions of agency.¹ This definition of agency requires understanding of three concepts: (1) the person’s ability to set goals in accordance with their values regarding a particular issue or decision, (2) whether they perceive themselves as able to achieve these goals, and (3) whether they are able to act towards achieving these values or goals, if they wanted to. Agency can involve specific decisions related to an individual’s own activities –whether a woman is able to work for an income outside the household, for example — as well as a decisionmaking process about another’s activities, particularly in the home (i.e., household savings or children’s education). Understanding the respondent’s preferences relative to specific decisions/decisionmaking roles is therefore important. Agency can also be transformative (ability to act towards changing the existing decisionmaking structure to suit the respondent’s preferences, even if

¹ These include, for example, Ibrahim and Alkire (2007) (based on Malhotra, 2003): “agency is the ability to act on behalf of what you value *and have reason to value*”; World Development Report (WDR) (2012): “agency is an individual’s (or group’s) ability to make effective choices and to transform those choices into desired outcomes”; World Bank Voice and Agency (2014) report: “agency is the capacity to make decisions *about one’s own life* and act on them to achieve a desired outcome, *free of violence, retribution, or fear*”; and Trommlerová, Klasen and Leßmann (2015) (which also gives a helpful review of previous work on agency and empowerment): “agency is *having the freedom* to act in line with one’s own values and to pursue one’s goals.”

he/she is not successful),² or non-transformative (the ability to make one's own choices within existing decisionmaking hierarchies).³

Agency is closely related to empowerment, although the latter is a broader concept, typically associated in the literature with improvements in wellbeing across health, education, economic opportunities, public life, and security.⁴ It has been previously argued that while empowerment includes components such as resources (pre-conditions) and achievement (outcomes), agency is the process that binds the former to the latter, although well-being outcomes and resources themselves affect agency (Kabeer 1999). For example, women's ability to define and act upon their health care choices (agency), is likely to depend on resources such as their education and employment, access to healthcare facilities as well as potentially unobserved characteristics such as assertiveness.

The relationship between agency and empowerment is further complicated as agency may be associated with declines in *other* aspects of well-being, particularly in the short run.⁵ Several studies have discussed how changes in the existing decisionmaking hierarchy or power relations might lead to increased tension and violence towards groups that begin to exhibit greater agency — for example, women who begin earning income could face backlash from men who feel threatened whereas violence is used to reassert men's privileged position over women (Smith et al. 2003; Heath 2014).

Agency is also often associated with autonomy (in the psychology literature) and bargaining power (in the economics literature). Within psychology and philosophy, autonomy relates to being a causal agent over one's life. Specifically, a person is autonomous when his or her behavior is experienced as willingly enacted and when he or she fully endorses the actions in which he or she is engaged and/or the values

² Sen's (1985) concept of "agency achievement" considers a person's success in terms of the pursuit of the whole of their goals as compared to whether he or she is actually successful in doing so. Sen (2002) also discusses agency as a process freedom; "the procedure of free decision by the person himself (no matter how successful the person is in getting what he would like to achieve) is an important requirement of freedom" (p. 585).

³ Kabeer (1999) discusses transformative and non-transformative agency in more detail. Agency can result in the power to make one's own choices, and have negative manifestations such as power over others – but agency can also exist in a more passive way within a social or cultural situation. Where there is a clear authority figure and decisionmaking structure, those who do not have a decisionmaking role can still achieve their goals through other indirect means. Transformative agency, which involves an underlying shift in power relations, can therefore be distinguished from non-transformative agency. Again however, this would vary by context and be addressed empirically by the choice of specific issues to examine.

⁴ Kabeer (1999) defines empowerment as "the expansion in people's ability to make strategic life choices in a context where this ability was previously denied to them."

⁵ Sen (1985) provides the example of someone who is enjoying lunch on the banks of a river and becomes aware of a second person who is drowning in the river. Sen writes that the awareness of the drowning person may diminish other aspects of the picknicker's wellbeing, but increases the picknicker's agency through the opportunity to act in the service of a goal in line with their "conception of the good".

expressed by them. Along these lines, an autonomous individual is “able to act on one’s values and goals”, although individuals’ ability to initiate transformative changes in their environment is usually not discussed in the autonomy literature. Autonomy is distinguishable from “independence” (the absence of external influences); people can depend on others who support their autonomy, for example. Bargaining power is the relative ability of parties in a situation to exert influence over each other, and is the weight given to each spouse’s utility in the household welfare function when bargaining. Bargaining power clearly overlaps with agency in terms of respondents’ ability to influence decisions and act on their preferences, although a key difference between the two is that bargaining power is relational by definition (as it orders the relative power between two or more individuals).

Agency is thus distinct from (though related to) empowerment and well-being. It is conceptually closely aligned with autonomy as defined in the psychology literature, and bargaining power in the economics literature. For this reason, we incorporate an overview of ways they have been measured in our review of agency measurement in Sections 3-5 below.

Our conceptual framework

Three key dimensions are needed to fully capture individual agency, the ability to define one’s goals and act on them:

- (1) *Individuals need to define goals that are in line with their values.*** This dimension of agency assesses whether for a given issue, individuals reflect on and develop well-defined goals, and whether these goals stem from an individual’s own values and preferences. Determining whether an individual’s goals are indeed guided by their own values has mostly been explored by psychologists in the context of motivational autonomy, notably those working on the theory of motivation known as Self-Determination Theory (Ryan and Deci 2000). Within Self-Determination Theory (SDT), the motivations behind an individual’s actions are classified according to whether they are regulated and endorsed by the self (i.e., are autonomous), driven by fear of coercion or retribution by others, or conditioned by internalized social norms. The ability to engage in self-reflection and set well-defined goals more generally has been studied in a range of literatures, following work in psychology on how goal-setting is linked to increased task performance (Locke 1968). In Section 3 below, we review measurement tools from both these literatures.

(2) *Individuals need to perceive a sense of control and ability.* Also defined as “having a sense of agency”, this construct is a crucial pre-requisite for agency to be exercised (Kabeer 1999). This dimension has been mostly explored in social learning theory and social cognitive theory through the constructs of locus of control and self-efficacy. Perceiving your own sense of control and ability to initiate actions is a definitional requirement of agency. Moreover, in order for individuals to act on their goals purposefully, they need to believe (to some degree) that they can achieve them; Cicchetti (2016) describes self-efficacy as a self-observation about one’s sense of agency. Measures used to capture sense of agency are reviewed in Section 4.

(3) *Individuals need to act on goals.* The final dimension of agency is an individual’s ability to enact their goals, and can involve a range of different actions. The individual can choose the extent of participation in relevant decisionmaking processes to achieve her goals – whether through actively pushing to be a final decisionmaker, or other means of negotiation or bargaining to achieve these goals. Whereas the first two dimensions of agency are regulated internally, acting on goals is usually a relational process. Direct measures have been mostly operationalized through decisionmaking questions across a variety of disciplines. We review these, as well as other tools used to capture individuals’ ability to act, in Section 5 below.

These three key dimensions of agency can be related to each other, though they are conceptually distinct. For example, an individual’s sense of self-efficacy can determine whether she decides to set goals, and her role in decisionmaking can also affect her sense of self-efficacy. Moreover, although these are the three crucial dimensions in order for fulfillment of agency, naturally the exercise of agency will depend on what resources are available to the individual, and how the individual interacts with them. While we acknowledge the importance of opportunity structure for the exercise of agency, tools to measure resources and individuals’ control over them are beyond the scope of this review. Two important areas that are challenging to measure (asset ownership and control over time) are covered by Doss et al. (forthcoming) and Seymour et al. (forthcoming).

3. Defining Goals

How has this been measured?

An individual's ability to define goals that are in line with their values is the first crucial component of agency. Without knowing what an individual's own goals and preferences are, it is difficult to understand and measure agency, as observed choices may be consistent with multiple sets of expectations and preferences (Manski 2004). Is there coercion to have certain goals or be involved in a particular activity? Is the respondent not involved in a specific decision or decisionmaking process because they don't care, or because they face restrictions in participating? Sen's work on capabilities discusses how the absence of protest on the part of household members could reflect adaption to the situation (adaptive preferences); on the other hand, not speaking out could just be related to the costs of doing so (Agarwal 1997). For example, a woman might not work outside the home because of the the cultural norms she has internalised or because her partner will not allow her to do. However, she might also have reflected on her preferences and autonomously decided she would rather stay at home. Understanding underlying goal-setting and preferences therefore allows us to interpret whether observed actions correspond to an exercise of agency, or not. Moreover, by definition agency is about more than observable action: it is about the motivation and purpose which individuals bring/assign to their actions. Without knowing whether an individual has well-defined and internally regulated goals in mind when engaging in certain actions, we cannot know to what extent they are engaged in the process of agency.

The ability to define value-based goals has been studied in social determination theory as well as social psychology (and more recently, behavioral economics). While the former has focused on determining whether an individual's goals are indeed guided by their own values, the latter has explored individuals' inclination and cognitive ability to define goals more generally. We review measurement tools within both these disciplines below.

Motivational Autonomy

The most common measurement of whether an individual's goals are guided by their own values, or "regulated by self", is the Relative Autonomy Index (RAI), developed in psychology studies (Ryan and Deci 2000). The RAI attempts to assess to what extent the motivaton behind actions are driven by an individual's own goals ("intrinsic motivation"), or externally regulated through internalized social pressure or coercion. First developed for late-elementary and middle school children to measure individual differences in types of motivation concerning school work and prosocial behavior (Ryan and Connell 1989), it has since been used to measure motivational autonomy in adults across domains. Unlike most tools created by psychologists for use in Western countries, the cultural applicability of the

RAI has been explored in cross-country work (Chirkov et al. 2011), although few of the validations have occurred in Sub-Saharan Africa.

The RAI has been incorporated in the Women’s Empowerment in Agriculture Survey Index (WEAI) module, the result of a recent partnership between Feed the Future, IFPRI, USAID, Oxford Poverty and Human Development Initiative, in order to measure men and women’s relative autonomy in agricultural production. This version of the RAI tool is presented in Box 1, below.

Box 1

The Relative Autonomy Index (RAI)

The RAI, a measure of motivational autonomy developed in psychology studies, is based on self-determination theory, and measures an individual’s ability to act on what he or she values.

RAI is constructed from answers to the following:

- (1) “My actions in [activity area] are partly because I will get in trouble with someone if I act differently,”
- (2) “Regarding [activity area] I do what I do so others don’t think poorly of me,” and
- (3) “Regarding [activity area] I do what I do because I personally think it is the right thing to do.”

Each of the three questions mentioned above is aimed at capturing a different kind of motivation: external (coerced), introjected (trying to please), and identified (own values), respectively. Typically, for each decisionmaking activity, the index is weighted most negatively for external regulation (coercion), less negatively for introjected regulation (trying to please), and positively for identified regulation (own values).

A small-scale pilot of this tool conducted in Uganda showed relatively high RAI scores for both men and women, but these results are likely confounded by the fact that respondents reported difficulty in understanding and answering the questions (Sproule and Kovarik 2014).⁶ A larger scale validation was recently conducted by Vaz et al. (2016) in Chad with men and women in over 4,000 households. While the WEAI used only one statement for each of the three motivational states described in Box – above, Vaz et al. (2016) used multiple (e.g., “because I will get in trouble if I don’t” and “because that is what other people tell me to do” to measure external motivation). As a result, they were able to conduct multiple validation tests of the scale, including factor and cluster analysis, and to evaluate how well different parts of the scale measured the same concept or idea.

Their conceptual validation of the RAI rested on two main hypotheses: (1) there are three main dimensions in the autonomy data, with each reflecting one of the following motivations: external

⁶ In Uganda, between 7-14 percent said they found the questions difficult, and 29-60 percent said they thought others would find the questions difficult.

(undertaking a goal because of external pressure or potential reward), introjected (undertaking an activity because you ‘ought’ to do it), and identified (autonomous); (2) as the subscales correspond to a *continuum* of autonomy, the adjacent subscales (e.g., external and introjected motivations) are expected to correlate more strongly than subscales further apart at opposite ends of the continuum (e.g., external and autonomous motivations). While Vaz et al. (2016) were able to corroborate (2), as well as the separation between controlled and autonomous motivations, they were *not* able to distinguish between external and introjected motivations. Internal consistency was measured by the Cronbach alpha, which measures how closely related a set of items are as a group (specifically, the inter-correlation among scale items). The authors found that the RAI had good but variable reliability, ranging from $\alpha=0.6-0.9$ among women. Within the domain of household purchases for women and among the domain of employment for men, the RAI had poor to unacceptable reliability.

Most recently, in response to concerns about poor respondent understanding, the RAI was adapted in the newer 2015 WEAI version as anchoring vignettes, which have been generally shown to increase ease of response (Martin 2006), and re-piloted in Uganda. The respondents were read the vignette stories about different types of farmers and their situations (corresponding to autonomous, introjected or coerced motivation) regarding different agricultural activities, and were asked to answer how similar they are to the farmer in the story. Cognitive testing showed that the vignettes were generally well-understood by respondents (Sproule and Kovarik 2014).

Box 2

Motivational Autonomy Vignettes in Uganda

Example: the respondent is asked about livestock raising, and presented with different stories.

“Asma [Amin] raises the types of livestock she does because her spouse, or another person or group in her community tell her she must use these breeds. She does what they tell her to do.”

“Alyea [Omor] buys the kinds of livestock that her family or community expect. She wants them to approve of her as a good livestock raiser.”

“Afyee [Anis] chooses the types of livestock that she personally wants to raise and thinks are good for her family and business. She values raising these types. If she changed her mind, she could act differently.”

Responses: Are you like this person? (Yes/No) Are you completely the same or somewhat the same? Are you completely different or somewhat different?

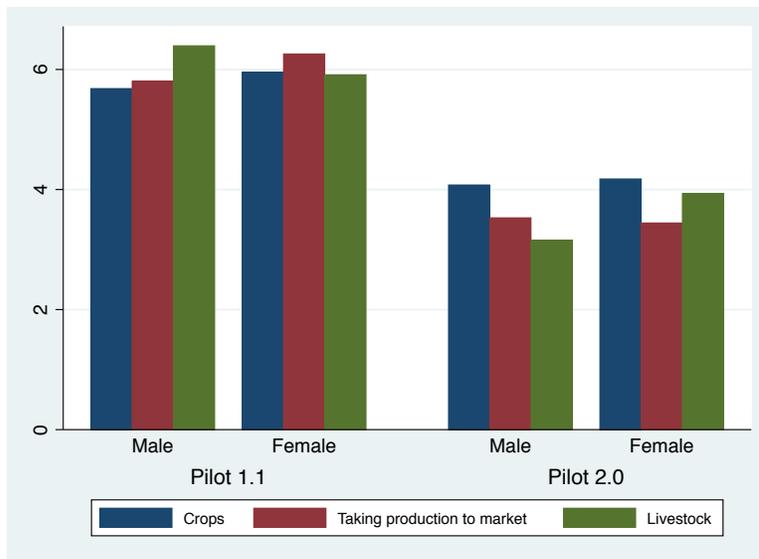
Further insight can be gained by comparing summary statistics from the RAI vignette pilot and the original RAI adaptation. We present some of these statistics below from the Uganda WEAI, which was conducted in five spatially dispersed rural districts in the northern region (Amuru and Kole), central

region (Luwero and Masaka), and eastern region (Iganga). The second pilot was conducted to develop and test a revised version of WEAI in the same districts as the original pilot; sample villages were randomly assigned to receive either the original (1.1) or revised (2.0) versions of the questionnaire.

Below, we analyze the Uganda WEAI data and present three key results. First, average RAI values are lower in the second (vignettes) pilot, likely reflecting improved respondent understanding. Second, within domains, there is a positive relationship between external and introjected motivation, and a negative relationship between autonomous motivation and both external and introjected motivation (controlled motivation). This validates the ordered correlation pattern hypothesis (a key hypothesis in the conceptual validation of the RAI), as in the Vaz et al. (2016) results from Chad. Third, there is a positive relationship in relative autonomy scores across domains (types of crops to grow, taking crops to the market and livestock raising). This is in line with previous findings from other settings, which show that different domains of autonomy are moderately related (Agarwala and Lynch 2006; Balk 1994).

Figure 1 presents average RAI values for men and women across the Uganda pilots, and for the three domains covered in the WEAI – growing crops, taking crops to market, and buying/raising livestock. The average scores were not significantly different across men and women, and were also similar across domains (likely because all three are agricultural domains). Scores fell significantly in the vignettes pilot, and following the discussion in Sproule and Kovarik (2014), this may reflect that respondents understood autonomy-related questions better as a result of these vignettes.

Figure 1. Average RAI values across pilots, by gender and domain of work



Within each of the three domains of work, Table 1 presents Spearman matrices for correlations of motivation subscales in the vignettes pilot, examining results separately for men and women. Although the overall pattern of correlations was similar by gender, the magnitude of correlations varied, particularly for crop growing. For both men and women, we find a positive significant association between external and introjected motivation, whereas autonomous motivation is for the most part correlated negatively with both external and introjected motivation (typically not significantly, with the exception of women in the growing crops domain). For women taking crops to market, the correlations between autonomous and external/introjected motivation are positive, albeit much smaller than that between introjected and external motivation. Overall, our results show that the correlation between external and autonomous motivations is the lowest for both men and women across domains, mirroring the conclusion in Vaz et al. (2016). Similar patterns arose in the earlier pilot (results available upon request), although the magnitude of correlations was much higher than in the vignettes pilot.

Table 1. Matrix of correlation between motivation subscales, Uganda vignettes pilot

	Women			Men		
Growing crops						
Introjected	External	Introjected	Obs.	Introjected	External	Introjected
Autonomous	0.2772*	-0.0287	187	Autonomous	0.4279*	-0.157
	-0.3798*				-0.1405	145
Taking crops to market						
Introjected	External	Introjected	Obs.	Introjected	External	Introjected
Autonomous	0.5119*	0.1188	185	Autonomous	0.4873*	0.0678
	0.0936				-0.0311	140

Buying/raising livestock	External	Introjected	Obs.	External	Introjected	Obs.
	Introjected	0.4516*			Introjected	0.5064*
Autonomous	-0.1514	-0.0129	176	Autonomous	-0.0776	-0.168

Notes: *=p<0.01

Finally, we found a significant positive correlation in RAI scores across domains, reflected in Table 2 below. For women and men, the highest correlation was between growing crops and raising livestock (about 0.60). For women, the next highest correlation was between growing and taking crops to market (0.54), whereas this was only 0.45 for men. In Vaz et al. (2016), the highest correlations across domains were about 0.40 for women and 0.47 for men — although these were also across a range of very different activities, not all specific to agriculture.

Table 2. Matrix of correlation between RAI scores across domains, Uganda vignettes pilot

	Domain	
	Growing crops	Taking crops to market
Women (obs=168)		
Taking crops to market	0.54*	
Buying/raising livestock	0.60*	0.44*
Men (obs=129)		
Taking crops to market	0.45*	
Buying/raising livestock	0.59*	0.57*

Notes: *=p<0.01

In conclusion, our results show that relative autonomy vignettes are a promising method for measuring women’s ability to set goals that are in line with their values: the vignettes improved respondent understanding while maintaining key features observed in other settings, such as ordered correlation patterns between motivational states and positive correlations in relative autonomy scores across domains.

Priorities for future research in the measurement of whether an individual’s goals are guided by their own values are summarized in Part B below.

Capacity to Set Goals

The ability to set goals based on one's values also depends on a process of self-reflection, and having the cognitive space to fully reflect on goals and associated decisions. This ability first came to be studied within Locke (1968)'s goal-setting theory of motivation, and was since shown to matter for task performance across a range of settings (Locke and Latham 2006). Goal-setting capacity mostly been studied and measured within industrial and organizational psychology, using structured questionnaires and scales aimed at uncovering how to improve performance outcomes within a given domain. Specifically, they are used to assess a respondent's goal-setting strategy on the basis of factors like goal-setting frequency, goal-setting effectiveness, goal commitment and preference for goal difficulty.

Locke and Latham's 53-item Goal-Setting Questionnaire (GSQ), validated by Lee et al. (1991), was the first of these tools, and is the basis for future adaptations. It focuses on employees' goal-setting strategies and determining core goal attributes that might be impeding employee performance. Selected items have been included in Box 3 below.

Box 3

Locke and Latham (1984) Goal-Setting Questionnaire

1. I understand exactly what I am supposed to do on my job.
2. I have specific, clear goals to aim for in my job.
6. If I have more than one goal to accomplish, I know which ones are most important and which ones are least important.
21. Usually feel that I have a suitable or effective action plan or plans for reaching my goals.
37. I find working toward my goals to be very stressful.
41. I have too many goals on this job (I am overloaded)

Response Options: Five-point Likert scale ranging from (1) "strongly disagree" to (5) "strongly agree".

Although these type of questionnaires go beyond just measuring the ability for setting well-defined goals, scales from adaptations of goal-setting questionnaires could be useful for this purpose. For example, Stout (1999) validates a scale that includes questions such as "How often have you set goals for what you want to accomplish?" and "How often have you developed specific plans to help you achieve your goals?" (Ranked 1-9, from "Not Often at All" to "Very Often"), while Polson (2013)'s Goal Setting Questionnaire includes questions such as "I regularly set goals in (domain)", "The goals I set are specific to what I want to accomplish" and "I regularly evaluate the goals I set to check my progress" (Ranked 1-5 from "Strongly Disagree" to "Strongly Agree"). To our knowledge, these *standardized* goal-setting questionnaires and scales have not been used in research in Sub-Saharan Africa.

However, attention to the importance of this aspect of agency within development settings has recently increased due to research on its role in poverty perpetuation (Mullainathan and Shafir 2014). Specifically, an individual's capacity to set goals – and thus achieve outcomes - is limited by the scarcity of attention and mental resources, which is itself exacerbated by poverty. For example, the most recent World Development Report describes how financial concerns and associated stress resulting from a lack of financial resources may deplete cognitive bandwidth, and hinder the capacity of an individual to develop well-defined goals and improve their financial situation (World Bank 2015).

Goal-setting capacity here has most commonly been measured by simple questions on what the respondent's goals are in a certain domain. Goal-setting ability is then determined based on how specific and detailed these goals are. Johnson (2015) uses this strategy in Kenya through in-depth interviews with 42 respondents, who were asked to describe their goals for the future, in particular as it regards savings. She found that overall, men – and in particular younger men – were more articulate than older people and young women about their goals and strategies for achieving them. Frese et al. (2007) ask small-scale business owners in South Africa, Zimbabwe, and Namibia to first describe their two most important goal areas, and then identify the goals in these two goal areas that they actually pursued. These were then rated based on their elaborateness and proactivity by two independent raters using 5-point Likert scales. Campos et al. (forthcoming), in the context of an entrepreneurial skills program evaluation, ask respondents a number of questions on their sales, profits and staffing goals for the following one-year and two-year period. Questions on goals for the future – particularly regarding income or educational attainment– are also frequently utilized in studies on the relationship between aspirations, achievement outcomes and well-being (e.g., Stutzer 2004).

Lastly, elicitation of respondents' goals beyond specific activities, capturing their preferences as to their overall decisionmaking role or involvement within a particular domain, are starting to be incorporated in surveys as part of questions on decisionmaking. For example, Peterman et. al. (2015) ask who respondents feel would be the ideal decisionmaker for each domain.⁷ As discussed further below, measuring women's goals regarding participation in a particular domain or activity should complement questions on their ability to act in that activity or domain: Peterman et al. (2015)'s results show that any indicator construction that uniformly chooses a particular response as constituting a voice in decisionmaking may not necessarily align with every woman's *desired* voice in decisionmaking, and

⁷ While the WEAI does not directly elicit preferences, it does ask respondents whether they could make their own personal decisions regarding each activity if they wanted to.

rankings from constructions based on researcher specifications as opposed to respondent preferences may again meaningfully differ.

Where are we headed?

Understanding women's ability to define goals based on their values is critical to understanding women's agency. From the review above, four crucial areas for future research emerge as it relates to defining goals: 1) improving assessment of internalized social norms, 2) adaptation of measures to developing country contexts, 3) assessing test-retest reliability, and 4) understanding overall preferences for involvement in decision-making.

First, while existing tools are successfully able to distinguish between external (coerced) motivation and internal (autonomous) motivation, they do not adequately capture to what extent goals are based on internalized social norms (introjected motivation). Future data collection efforts that include respondents' answers to subscales or vignettes aimed at capturing this factor should also collect additional contextual information on social norms. Specifically, measures of introjected motivation as captured via the RAI should be collected alongside measures of prevalent social norms and to what extent individual's observed behavior conforms with social norms, following the approach laid out in Mackie et al. (2015). Comparing these two approaches will shed light on how the RAI should be modified in order to more precisely capture to what extent an individual's goals are based on prevalent norms, or to what extent direct measurement of introjected motivation is possible, particularly among low-literacy populations. Better measurement of this factor will enable us to better understand through what mechanisms norms affect women's agency, which is particularly important as interventions develop that seek to transform gender norms through group-based discussions, community mobilization, or economic strategies (Abramsky et al. 2016; Ellsberg et al. 2015).

Second, future research should explore to what extent standardized goal-setting questionnaires used in psychology studies, that have been validated and shown to be strongly related to well-being outcomes, can be adapted to measure goal-setting capacity in developing countries. This could not only deliver a standardized measurement tool, but also to help inform the growing number of interventions that utilize goal-setting as a mechanism for better outcomes (e.g., IFAD's household methodologies, which encourages households to set time-bound goals and create action plans) by better capturing their effects, how goal-setting relates to the outcomes, and what the underlying constraints to goal-setting capacity are.

Third, when testing measures to capture goal-setting ability, future research should make sure to capture the test-retest reliability of these measures. Although capturing test-retest reliability is an important component of validation for many indicators, it may be particularly helpful for better understanding this dimension of agency. Theory indicates that goal-setting ability may be particularly affected by cognitive bandwidth, and thus be diminished in times of scarcity according to seasonal patterns. Preliminary evidence of this is illustrated in the case of farmers in India, who showed diminished cognitive performance before harvest as compared with after harvest (Mani et al. 2013).

Fourth, building on existing tools to measure goal-setting, more detailed questions to capture women's overall goals regarding their input into activities or *involvement in decision-making* within the household and at the community-level should be piloted. As discussed further in Section 5, this expands on asking who the respondent thinks the ideal decisionmaker should be (as captured in the Peterman et. al. 2015 study), and understanding further which spheres of decisionmaking matter to the respondent, as well as the degree of input they would like to have.

4. Perceiving control and ability to achieve goals

How has this been measured?

As Kabeer (1999) writes, in order for the process of defining goals and acting on them to be meaningful and constitute agency, individuals need to perceive themselves as controlling or initiating their actions. Due its importance, the measurement of “sense of agency” (SoA) has been the topic of substantial research across disciplines, including within cognitive science (e.g., Friston 2012; Haggard and Eitam 2015), where measurement tools comprise brain imaging studies as well as sensory tests capturing individuals’ perceptual differences between stimuli that are self-generated versus externally generated.

In the social sciences, sense of agency has been conceptualized – and accordingly measured – in line with the framework laid out in Skinner (1996), which categorizes sense of agency and control constructs according to how resources (means) and goal-related outcomes (ends) interact.

Locus of Control

Means-ends relationships refer to classes of beliefs about how outcomes are contingent upon certain actions. The main construct used to capture the means-ends relation is that of ‘locus of control’ derived from Rotter's social learning theory (Rotter 1966; 1982). An individual’s locus of control (LOC) is defined as **the degree to which an individual believes that events are caused by one’s own behavior (internal locus of control) versus external factors (external locus of control)**. The most widely-used locus of control scale is the original 23-item scale proposed by Rotter (1966), which was later revised by Valecha (1972) into an 11-item version.

Box 4

Sample from the Rotter Internal-External Locus of Control Scale (1966)

- a. Many of the unhappy things in people’s lives are partly due to bad luck.
- b. People’s misfortunes result from the mistakes they make.

- a. In the long run, people get the respect they deserve in this world.
- b. Unfortunately, an individual’s worth often passes unrecognized no matter how hard he tries.

- a. In my case, getting what I want has little or nothing to do with “luck”.
- b. Many times we might just as well decide what to do by flipping a coin.

Response option is a or b. In the Valecha (1972) scale, the respondent is further asked to indicate to what extent the statement is (1) much closer or (2) slightly closer to his or her opinion.

This scale has proven popular across disciplines, including economics, due to its high internal validity, and was used by Heckman et al. (2006) and Heckman and Kautz (2012) to measure its predictive ability on a range of long-term success outcomes.

Since it was first proposed, the measurement of locus of control has evolved in response to two sets of critiques. The first, laid out in Reid and Ware (1973), is that LOC is a multidimensional construct consisting of several different factors, and should be measured as such. In response, Levenson (1981) developed the Internality, Powerful Others and Chance (IPC) scale to distinguish multiple dimensions within the external side of the LOC continuum (specifically, whether persons expect outcomes to be a function of chance, luck, or fate, or to be under the control of powerful others). Both the Rotter I-E scale and the Levenson IPC scale have been used and validated in Sub-Saharan Africa for well-educated, professional sub-populations (e.g., Stocks et al. 2012 in South Africa and Abbas 2016 in Nigeria). One of the few applications of these scales to low-literacy populations was conducted by Bernard et al. (2014) in Ethiopia, using the IPC scale. The Cronbach alpha estimates at baseline showed adequate internal consistency: $\alpha=0.68$ for the Chance subscale, $\alpha=0.74$ for the Powerful Others subscale, and $\alpha=0.75$ for the Internality subscale. Among studies that assessed gender differences, female respondents tended to have a more external locus of control than male respondents.

A second line of critique began with Dixon, McKee and McRae (1976), who criticized the measurement of generalized LOC as a “sledgehammer” approach, and instead advocated situation-specific measurement. As a result, a wide range of domain-specific locus of control scales have been developed, mostly for education- and health-related activities, such as the Multidimensional Health Locus of Control Scale. In Sub-Saharan Africa, this scale has mostly been used among hospital patients (e.g., Kretchy et al. 2014 in Ghana) and adolescent students (e.g., Celis et al. 2014 in Rwanda and Astrom and Blay 2002 in Ghana). Results generally support the cross-cultural correspondence of the scale, though gender patterns are less clear. Specific locus of control scales for the economic domain also exist, most notably the Spector (1988) “Work Locus of Control Scale” and the Furnham (1986) “Economic Locus of Control Scale”, which includes items such as “whether or not I get to become wealthy depends mostly on my ability” and “although I might have the ability, I will not become better off without appealing to those in positions of power.” Plunkett and Buehner (2007) found that scores on the Economic Locus of Control Scale correlate with economic-related choice preferences that were not predicted by Rotter’s scale. Although this scale has been validated in a South African sample (Van Delen et al. 1987) to our

knowledge, this scale has not been included in questionnaires in Sub-Saharan Africa, at least not in its entirety.

Overall, unlike psychologists, economists and researchers working in Sub-Saharan Africa have typically focused on generalized measures of LOC, which are largely independent of the context, and conceptualize internality or externality as a general personality trait.

Self-Efficacy

While means-ends relationships refer to beliefs about whether outcomes are contingent upon certain actions, agent-means relationships regard beliefs about whether one can *produce* the relevant actions. Capturing control within the agent-means relationship has been most frequently measured through self-efficacy, **the belief in one’s capabilities to act effectively towards a goal**. This should be distinguished from *outcomes expectations*, which are assessments of future outcomes that are largely based on perceived self-efficacy. The construct of self-efficacy was introduced by Bandura and represents a core aspect of his social-cognitive theory (Bandura 1977; 1995). In reaction to theories that focused on locus of control, Bandura pointed out that even if individuals believe that outcomes can be influenced by behaviors or responses, they will not attempt to exert control unless they also believe that they themselves are capable of producing the requisite responses.

There are two main conceptualization of self-efficacy, which result in two main measurement methods. As Bandura originally envisaged it, self-efficacy is a context-specific judgment about one’s ability. Thus, self-efficacy should be measured by asking the respondent about their confidence in completing specific actions, as illustrated in Box 5. For example, when evaluating self-efficacy for self-regulated learning, the student should be asked about specific actions such as “remember information presented in class and textbooks” and “arrange a place to study without distractions”.

Box 5

Example of self-efficacy scale (Bandura, 2006)

Question: The attached form lists different activities. Rate how confident you are that you can do them as of now. Rate your degrees of confidence by recording a number from 0 to 100 using the scale given below:

0	10	20	30	40	50	60	70	80	90	100
Cannot do at all				Moderately certain can do						Highly certain can do

The other main conceptualization of self-efficacy in the literature is as a generalized personality trait (similar to the LOC literature above). Instruments developed to measure generalized self-efficacy assess people's overall confidence that they can succeed at tasks and in situations without specifying what these tasks or situations are, and capture individuals' general personal resource beliefs. Generalized self-efficacy was first measured by Jerusalem and Schwarzer (1981) using a 20-point scale, and has since been used in numerous research projects in developed countries, where it typically yields internal consistencies (correlations between different items) of between $\alpha=0.75$ and $\alpha=0.90$. Newer and shorter variants with similar internal consistency have been developed more recently, such as the New General Self-Efficacy Scale (NGSE) by Gilad Chen, Stanley M. Gully and Dov Eden illustrated in Box – below.

Box 6

New General Self-Efficacy Scale (Chen et al. 2001)

1. I will be able to achieve most of the goals that I have set for myself
2. When facing difficult tasks, I am certain that I will accomplish them
3. In general, I think that I can obtain outcomes that are important to me
4. I believe I can succeed at most any endeavor to which I set my mind
5. I will be able to successfully overcome many challenges
6. I am confident that I can perform effectively on many different tasks
7. Compared to other people, I can do most tasks very well
8. Even when things are tough, I can perform quite well.

Scored from strongly disagree (1) to strongly agree (5)

Which self-efficacy measurement tool to use depends on the research question at hand. In innovative large-scale field studies governed by a broad range of variables and few specific hypotheses, general constructs have been found useful. An interesting example of this is a study by Jerusalem and Schwarzer (1995), which found that generalized self-efficacy was the best single predictor of overall adjustment for East Germans who migrated to the West when the Berlin wall came down.⁸ However, when evaluating the effects of a specific program, such as a new curriculum aimed at increasing math grades, domain-specific measures of perceived self-efficacy are better predictors of outcomes than generalized ones. Moreover, in the context of evaluating a program specifically targeted at improving domain-specific self-efficacy (such as in agriculture or entrepreneurship), using task- or activity-based measures of self-efficacy is recommended (Pajares 1996).

⁸ Over a two-year observation period, as assessed by a number of health and well-being variables.

In international applications of the General Self-Efficacy Scale, women tend to score lower than men, though results differ across countries (e.g, in Schwarzer et al.'s 1997 study, significant gender differences emerged in the Chinese and German samples, but not in the Costa Rican sample). Adaptation of self-efficacy scales for the measurement of women's agency in Sub-Saharan Africa has mostly occurred in the domains of entrepreneurship and health, through task- or activity-specific scales. Building on promising outcomes in developed countries, where entrepreneurial self-efficacy (ESE) has been linked to improved firm performance, researchers in Sub-Saharan Africa are developing task-specific scales to look at self-efficacy as a mediator between entrepreneurship training and success, particularly for female entrepreneurs. For example, McKenzie and Puerto (2015) measure entrepreneurial self-efficacy through 10 questions about the owner's confidence in their ability to perform key business activities, such as coming up with ideas for new products, selling a product to a customer they are meeting for the first time, and persuading a bank to lend them money for their business.

Aside from entrepreneurship, self-efficacy scales in Sub-Saharan Africa have been used within health psychology in HIV-affected areas, the most common being the Condom Use Self Efficacy Scale (CUSES). Despite the use of the scale in several studies in Africa, Asante and Doku (2010) were the first to validate the factorial dimensions of the scale in the region. Although the factor loadings were similar to the original CUSES scale, important differences emerged suggesting relevant cultural variations. As a result, the researchers cautioned against the use of self-efficacy scales without thorough validation in African settings and contexts.

Sense of Agency

Lastly, some studies have attempted to capture agent-ends relationships (sense of agency) directly. The most popular measure of this is a rating scale to measure freedom of choice and control over one's life, which prompts the respondent in the following way: *“Some people feel they have completely free choice and control over their lives, while other people feel that what they do has no real effect on what happens to them. Please use this scale [...] to indicate how much freedom of choice and control you feel you have over the way your life turns out.”* Respondents answer on a ten-point scale, ranging from “none at all” (1) to “a great deal” (10).

Due to its brevity, this measure is increasingly used in household surveys in development settings, and has also been included in the World Values Survey (WVS) since its first wave in 1981. This inclusion allows the computation of nationally representative statistics on perceived freedom of choice and control

for 99 countries over thirty years.⁹ This is particularly of interest for analyzing gender differences in sense of agency, complementing the results from the measures described above, which show indicative but unsystematic evidence of women’s lower sense of agency compared to men.

In the WVS data, internationally and across waves, men have higher perceived freedom of choice and control (an average of 6.92 for men versus 6.75 for women). This result appears to be robust to the inclusion of controls for marital status, education, relative income level, and employment status. We include year and country dummies in (2), and additionally calculate cluster-adjusted robust standard errors that account for within-country correlation in (3).

Table 3. OLS Regressions for “Perceived Freedom of Choice and Control”

	(1)	(2)	(3)
Female	-0.071*** (0.010)	-0.076*** (0.010)	-0.076*** (0.022)
Married	-0.195*** (0.011)	0.045*** (0.010)	0.045** (0.020)
Education Level	0.153*** (0.007)	0.137*** (0.007)	0.137*** (0.018)
Age	0.003*** (0.000)	-0.002*** (0.000)	-0.002* (0.001)
Income Scale	0.135*** (0.002)	0.125*** (0.002)	0.125*** (0.009)
Full-time Employment	0.096*** (0.020)	0.045** (0.020)	0.045 (0.037)
Part-time Employment	0.115*** (0.025)	-0.007 (0.024)	-0.007 (0.045)
Self-employed	0.229*** (0.024)	0.126*** (0.023)	0.126*** (0.045)
Retired	-0.124*** (0.028)	-0.017 (0.027)	-0.017 (0.058)
Houswife	-0.062** (0.024)	-0.144*** (0.023)	-0.144*** (0.054)
Unemployed	-0.172*** (0.024)	-0.196*** (0.023)	-0.196*** (0.046)
Constant	5.987*** (0.027)	4.794*** (0.109)	4.794*** (0.275)
Observations	244,782	244,782	244,782
R-squared	0.029	0.122	0.122

⁹ Simple comparisons across waves should be made carefully. As Stevenson and Wolfers (2008) note, WVS data are strongly influenced by methodological changes between waves.

Although the results presented above are preliminary, the point to the important role that gender appears to play in perceiving freedom of choice and control, which merits a more in-depth investigation in future analytical work.

Despite the usefulness of an abbreviated measure such as the scale above, there is debate in the literature on what this direct measurement of agent-ends relationships captures, and how it relates to measures of agent-means (self-efficacy) and means-ends (locus of control) relationships. For example, although the scale above should capture both kinds of control constructs, it is usually presented as an abbreviated way to capture an individual’s locus of control (e.g., Pitlik et al. 2015). To our knowledge, the relationship between the two has not been tested directly, but only indirectly through proxies. For example, Verne (2009) tests whether the scale captures locus of control by comparing results to importance attributed to child obedience (assuming this would be most appreciated by individuals with an external locus of control) and the importance attributed to child independence (assuming this would be most appreciated with individuals with an internal locus of control).

Fortunately, the World Values survey simultaneously included two other questions related to sense of agency, in addition to the freedom of choice and control scale, in its fifth wave conducted between 2005 and 2009. The first one captures respondents’ agreement with the statements “Everything is determined by fate” versus “People shape their fate themselves”, graded on a 1-10 scale, which is conceptually very closely aligned to locus of control. The second one records agreement with the statement “I see myself as an autonomous individual” on a 1-4 Likert scale (1= Strongly agree, 2= Agree, 3=Disagree, 4= Strongly disagree).

We calculate Spearman's rank correlation coefficients to explore associations between these three constructs, and present Spearman’s rho below.

Table 4. Spearman’s Rho Across WVS Agency Constructs

	<i>Perceiving freedom of choice and control</i>	<i>Fate vs. Control</i>	<i>Perceived autonomy</i>
<i>Fate vs. Control</i>	0.2583***	--	--
<i>Perceived autonomy</i>	0.0760***	0.0656***	--

N = 60,173

Although the associations are modest, all three correlation coefficients are statistically significant at the 0.01 level, with the strongest association emerging between perceived freedom of choice and control and

fate vs. control, as expected. Going forward, it will be important to conduct a more in-depth investigation of the correlates of association between these three constructs, and how these differ across contexts. Moreover, direct testing of the extent to which the measure of perceived freedom of choice and control – as well as other measures that attempt to measure agent-ends relationships directly - overlaps with the standardized locus of control and self-efficacy scales is crucial (as discussed further in Section B below), particularly as it is increasingly used in surveys as a sense of agency measure due to its brevity.

Where are we headed?

Although general measures of non-cognitive skills or personality traits are being increasingly studied within development settings, few studies have examined the specific constructs of locus of control (contingency beliefs) and self-efficacy (competency beliefs) within the context of better understanding women's agency in Sub-Saharan Africa. Priorities for future research in this area include: 1) the adaptation of domain-specific measures of sense of agency, 2) increasing the precision of sense of agency measurement through collaboration with experts in these measures, particularly when adapting across contexts, 3) analyzing differences between locus of control, self-efficacy and measures capturing agent-ends relationships (sense of agency) directly and 4) exploring the relationship between domain-specific and generalized measures of sense of agency.

First, future research in this area should work to improve the measurement of domain-specific measures of sense of agency, as is been done for entrepreneurship and health, in order to more accurately reflect the range of activities that women engage in. This expansion brings with it its own challenges. In practice, the process of scale adaptation has mostly been approached in an ad-hoc way, for example by picking and choosing items from existing scales that are seen as most appropriate in the local context, as done by Bernard et al. (2014) with the IPC scale. However, beyond more general concerns regarding comparability that arise from an ad-hoc approach, adaptation needs to better account for difficulties in translation and in respondent understanding of the abstract concepts contained in these scales. For example, Frese et al. (2016) find that “entrepreneurship psychology” questions worded in opposite directions produced different factors, most likely due to difficulties respondents encountered in understanding negatively worded questions. A promising approach to deal with this constraint was piloted by Laajaj and Macours (forthcoming) in Kenya, using “beans” as a visual aid. In two different reliability tests (test-retest after 3 weeks to measure stability, and Cronbach Alpha calculation to measure internal consistency), this measure of LOC scored second most reliable out of 10 non-cognitive skills the authors measured.

Second, more conceptual clarity and precision of measurement is needed to maintain the conceptual integrity of sense of agency across contexts during the adaptation of these measures. As Cobb-Clark (2014) writes, by disregarding the subtleties of the distinctions that psychologists are inclined to make, economists have been able to make progress by ignoring the trees in order to see the forest. On the other hand, because they have failed to distinguish between related concepts and to take measurement seriously, economists' understanding of the way that perceptions of control influence economic behavior lacks a certain richness and complexity. Personal agency beliefs in means-ends relationships (locus of control) and agent-means relationships (self-efficacy) need to be more clearly distinguished from other psychological or non-cognitive measures that do not have as tight a conceptual link to agency, such as tenacity, optimism, and patience. An example comes from Dercon and Singh (2013), who found that girls had lower self-efficacy than boys in India and Ethiopia, and related under-nutrition in early childhood to lower self-efficacy in late childhood/early adolescence. However, their measure of self-efficacy, using the Young Lives survey, consisted of the following five statements: 'If I try hard, I can improve my situation in life', 'Other people in my family make all the decisions about how I spend my time', 'I like to make plans for my future studies and work', 'I have no choice about the work I do – I must do this sort of work' and 'If I study hard at school, I will be rewarded by a better job in future', which combine different related psychological measures of control, motivation and self-confidence, and do not focus on personal competency beliefs (self-efficacy).

Although these kind of psychological measures are related to each other, caution is due as policymakers are increasingly designing programs specifically aimed at increasing self-efficacy (e.g., Vasilaky et al., forthcoming). Interventions targeting competency beliefs versus contingency beliefs, for example, will need to be structured differently in order to address different pathways and cognitive levers. In order to build an evidence base that policymakers can draw on in their design of these programs, and in order for researchers to evaluate the effects of these programs, future research should take care to distinguish between sense of agency constructs measured. In a recent review on the adaptation of LOC measures, for example, Huizing et al. (2015) recommends that experts in the understanding and research of locus of control ought to be more involved in the process of validating translated tools in order to ensure that they measure what they claim to measure.

Third, future research should better investigate the difference between the three main categories of sense of agency constructs described in Skinner (1996). While agent-means relationships (self-efficacy) and means-ends relationships (locus of control) are the sense of agency measures that have been most

extensively validated and used, freedom of choice and control scales that try to measure agent-ends relationships directly are an attractive option for researchers due to their brevity. The importance of better understanding what these shorter measures capture is particularly important due to increased numbers of interventions targeting these constructs, as discussed above.

Fourth, increasing our understanding of the relationship between generalized measures and domain-specific measures of contingency and competency beliefs is also an avenue for future research. Although preliminary work in developed countries indicates that these might be separate concepts, and should be used to measure different questions, both are important for understanding women's agency better. This research will have implications both for the use of these variables in analysis, and for designing future projects related to women's agency. For example, domain-specific personal agency beliefs might be better suited as outcome variables, whereas generalized personal agency beliefs might be better suited for subgroup or heterogeneity analysis. In terms of consequences for programming, even advocates of domain-specific measures acknowledge that self-efficacy should and can generalize when commonalities are cognitively structured across activities. Understanding the conditions and contexts under which sense of agency will generalize to differing activities offers valuable possibilities for intervention and instructional strategies that may help women build both competence and the necessary accompanying self-perceptions of competence.

5. Acting on goals and values

How has this been measured?

Intra-household decision-making questions

Acting on goals and values has typically been measured in surveys through questions on **decisionmaking roles** within the household (i.e., who participates in decisionmaking) over different domains such as family planning, employment, agriculture, health, consumption, and education. These questions were first employed in developed countries starting in the late 1950s and early 1960s. The first well-known decisionmaking module was introduced by Blood and Wolfe (1960) with their Decision Power Index. In this index, the respondent is asked to indicate "who has the final say" in respect to eight family decisions, and response alternatives are weighted from 5 (husband always) to 1 (wife always). A sample item is included in Box 7 below.

Box 7

Decision Power Index, Blood and Wolfe (1960)

Sample item

“In every family someone has to decide such things as where the family will live and so on. Many couples talk such things over first, but the final decision often has to be made by the husband or the wife. For instance, who usually makes the final decision about whether or not the wife should go to work or quit work?”

Response Options: husband always, husband more than wife, husband and wife exactly the same, wife more than husband, wife always.

Despite early recognition of issues inherent in these types of questions (discussed further below), this approach to measuring decisionmaking roles has not been changed or adapted substantially over time, with its use increasing, especially in large-scale surveys in developing countries. In these surveys, participation has traditionally been elicited by asking who the primary or “usual” decisionmaker is, using the same response options across a variety of different domains. This focus on the main decisionmaker stems from the notion that the greater number of decisions an individual is involved in, the greater control they have over their own life (Kishor 2005).

Since 2000, for example, the nationally-representative Demographic and Health Surveys (DHS) have included questions targeted towards respondents and, for specific questions, their husbands, on who “usually makes decisions” over different areas, with response options being the respondent, his/her spouse, whether the decision is joint, or another household member. In a separate couples module, the DHS also asks married women and their husbands (separately) who in their household “usually makes decisions” over (1) large household purchases, and (2) how the husband’s earnings will be used. The same question structure has also been used in many country studies with an interest in gender, a recent example being de Brauw et. al. (2014), who evaluate the effects of a conditional cash transfer program in Brazil on women’s decisionmaking power, and ask women about who in the household generally makes decisions over a range of issues (whether she, her husband, or another household member is the sole decisionmaker, or whether decisionmaking is joint across different combinations of these categories). A summary of the DHS questions is provided in Box 8; more detail is also available in the Appendix.

Box 8

Decisionmaking questions in the Demographic and Health Surveys (DHS)

The DHS asks married women aged 15-49 on their decisionmaking roles (“who usually makes decisions

over [X]”) across the following areas:

- (1) using/not using contraception
- (2) how the money you earn will be used
- (3) how your (husband's/partner's) earnings will be used (*also asked of respondent's spouse; see below*)
- (4) health care for respondent
- (5) major household purchases (*also asked of respondent's spouse; see below*)
- (6) visits to respondent's family or relatives

For each decision, respondents are asked who the main decisionmaker was. Typical response outcomes are (a) respondent, (b) spouse, (c) joint decision, (d) someone else, (e) other. For domestic violence and individual health care, the DHS also asks women if they tried to seek care for themselves, and if they faced any constraints in doing so.

In a separate couples module, the DHS also asks married women and their husbands (separately) who in their household “usually makes decisions” over (1) large household purchases, and (2) how the husband's earnings will be used. The other areas of decisionmaking mentioned above were not asked in the couples module.

The first issue with the standard decision-making questions presented above is that they **do not include the discussions or negotiations (particularly, whether opinions were conflicting) in the decisionmaking process**. In many instances, for example, the respondent might have regular discussions or other input with family members over different topics — and feel that their opinion is valued — even if they do not consider themselves the “main decisionmaker”, either solely or jointly. Moreover, joint decisionmaking in a case where all participants agree may reflect a different dynamic than joint decisionmaking where there is conflict, and “jointness” might reflect cooperation and compromise, or capitulation to the wishes of a dominant household member, with the respondent *not* feeling that their opinion is valued (Seymour and Peterman 2016). This point has been raised in the literature early on. For example, in a study on rural household economies and the role of women in West Java, Sajogyo et al. (1979) write that questions on “general” patterns of decisionmaking in the respondent's household may yield “responses far removed from reality”, and recommended focusing on specific events, asking questions such as “did you and your husband discuss it?”, “did you agree?” and “whose view eventually prevailed?”.

While recent surveys that look at household decisionmaking roles continue to focus on the primary decisionmaker, a few country studies have tailored response options to give a better sense of the decisionmaking process. In a cross-country study of a multi-pronged poverty program, for example, Banerjee et al. (2015), ask whether respondents have a “major influence” or “no or minor influence” in the final decision across different types of expenses (food, clothing, health, etc.). Heath (2014) examines

possible mechanisms on how extra earnings affect household bargaining and the threat of domestic violence in Bangladesh, and asks respondents how frequently their husbands consult with them about different household decisions (never/sometimes/often/always).

In terms of cross-country surveys, the main innovation on this front has occurred in the WEAI, which employs decisionmaking questions similar to the DHS and has published data from pilots conducted in Uganda, Bangladesh, and Guatemala in 2012. The WEAI questionnaire asks respondents who normally takes decisions over different household domains (see Box 9 below, and Appendix for more detail), but also asks respondents the extent to which they feel they can make their own personal decisions over each domain.¹⁰ Moreover, it asks about the extent of input respondents have over domains, not just focusing on the final decisionmaker.

Box 9

Women's Empowerment in Agriculture Index (WEAI)

Adult men and women were asked the following sets of questions:

Decisionmaking questions on agriculture, borrowing, and productive assets:

- (1) For different agricultural activities (Food crop farming, cash crop farming, livestock, nonfarm economic activities, wage and salary employment, fishing):
 - (a) Did you participate? (Y/N);
 - (b) How much input did you have for each agricultural activity (and separately, income generated from each activity)? (No input or input in few decisions, input into some decisions, input into most or all decisions, or no decision made)

- (2) For different household decisions over agriculture, other nonfarm employment, expenditures and family planning:
 - (a) who is it that normally takes the decision (see Appendix A for more detail),
 - (b) to what extent do you feel like you can make your own personal decisions regarding these aspects of household life if you want(ed) to (not at all, small extent, medium extent, to a high extent)?

How much does this matter? The most comprehensive investigation of this question comes from a recent paper by Peterman et al. (2015), which explores the standard women's decisionmaking measures in the context of household survey data from Ecuador, Uganda, and Yemen. First, they motivate the importance of the decision-making process leading up to the final decision by showing that whether joint decisionmaking is considered as having as exhibiting agency substantially changes how women's decisionmaking is ranked across households. This is particularly true for Ecuador and Uganda, where

¹⁰ The WEAI also includes questions on decisions to sell, give away, mortgaging and purchasing items to determine control over productive capital – these are covered in Doss et al. (2016).

considerable shares of women report making joint decisions in domains. Knowing whether the respondent engages in regular discussions or other input and feels that their opinion is valued has important implications for how to rank joint decision-making, and therefore for measuring women's agency.

Second, they assess to what extent capturing *disagreement* in this process matters. Among the two countries where joint decisionmaking was often reported, the question on disagreement was included in the Ecuador survey, and motivated by the fact that sole decisionmaking in the presence of disagreement may better capture the ability to make sole decisions (since a joint decision with no disagreement is nearly equivalent to a sole decision). They find meaningful differences in how a woman's decisionmaking role is ranked according to whether conflict in decisionmaking is taken into account, reflecting that there are cases in which women report that they do not make sole decisions within a domain, yet when asked to consider the case of a disagreement within the household, report that they would ultimately be the sole decisionmaker.

The second main issue with decisionmaking questions explored in the literature is that the **phrasing and response options** for many of these questions can result in ambiguity, with respondents basing their answers on their own understanding of the situation at hand and the role they play in it. In an anthropological study from Bangladesh, for example, Devine et. al. (2008) find that women view decisionmaking in inter-relational terms (that is, being involved in joint discussions with their husbands or other household members), whereas men view decisionmaking as who "effectively manages" the household or decision. Furthermore, these understandings might be guided by social norms about who ought to control decisions, or difference between spouses in perception and identity. Since decisionmaking is a relational construct (as discussed in Section 2 above), there is a long tradition in developed country surveys of considering the point of view of both spouses on the power of women in the household, beginning with Blood and Wolfe (1960). Since then, several studies in the US have found large discrepancies in decisionmaking roles as reported by the husband versus the wife (e.g., Monroe et al. 1985). One interesting finding from this literature is that men have a tendency to attribute more power to the wife than she does to herself, and that the level of women's agency as measured through decisionmaking depends on whether wives or husbands are respondents. Earlier studies from the U.S. on spousal decisionmaking (Davis and Rigaux, 1974, Burns, 1977) also emphasize the need to look at different types of agreement and disagreement — for example, whether both spouses agree that the husband is the sole decisionmaker can be associated with very different outcomes as compared to whether they agree that decisionmaking is joint. Likewise, within disagreement, if the wife says decisionmaking is joint, different

scenarios are likely to arise if the husband still claims primary responsibility (“presumption,” or over-estimating his role) as compared to saying the wife is solely responsible (“concession”).

Thus far, the main developing country study comparing spouses’ reported decisionmaking roles comes from Ghuman et. al. (2006); their study uses data from five countries in South and Southeast Asia to examine the extent of agreement/disagreement between spouses on who the main decisionmaker is for different household issues related to children and other tasks.¹¹ Specifically, their study asks husbands and wives “who in your family decides [X]”; response options in their study, however are much more streamlined (whether the woman decides, or whether others decide). They also ask “who in your family has the greatest say” in purchasing major goods for the household, such as a television, as well as the number of children to have (wife, both husband and wife, or just the husband). They find that the assessed level of women’s agency depends on whether wives or husbands are respondents, and that the response categories do not have the same cognitive or semantic meanings to men and women.

Spouses’ views of decisionmaking roles: evidence from the DHS

Along with the findings from the developed-country literature, the results from Peterman et. al. (2015) and Ghuman et. al. (2006) point to the need for a better understanding of how spouses view their roles in decisionmaking, and how this affects the measurement of agency. In this section, we examine these issues in the context of Sub-Saharan Africa, where little work has been done on this issue, using the 5th and 6th waves of the DHS from 24 countries in the region.

As mentioned earlier, DHS surveys are nationally representative, and ask married women and their spouses who is usually responsible for decisionmaking over two domains — large household purchases and the use of husband’s earnings. Specifically, we examine the following questions:

- (1) What is the extent of inconsistency in spouses’ reported decisionmaking roles across different domains, and are there more common types of disagreements? For example, are disagreements more likely to arise with each spouse claiming he/she is solely responsible, or is one spouse more likely to over/under-estimate their role?

¹¹ These areas include (a) What to do when a child falls sick, (b) how much schooling to give to children, (c) to whom to marry your children, (d) what food to buy for family meals, (e) whether to purchase major goods for the household, and (f) whether the woman should work outside the home.

- (2) What are underlying characteristics (demographic, socioeconomic, attitudes over gender-related issues) that are associated with different types of agreement as well as disagreement in spouses' responses?

For (1), understanding the extent and types of reporting inconsistencies is important for measurement. The DHS do not provide a direct view on how spouses interpret decisionmaking questions, and whether there are any differences in interpretation across spouses. The presence of other household members during the survey, which could also affect the nature or interpretation of responses, was not collected for this module. Comparing patterns in reporting across different decisionmaking areas or domains could be one, albeit not perfect, way to better understand differences in spouses' responses — for example, there may be more conflict in decisionmaking over the use of husband's earnings. Looking at underlying characteristics associated with spouses' agreement/disagreement ((2) above) is another way to understand how inconsistencies evolve. Earlier studies from the US (Blood and Wolfe, 1960) and developing countries discuss how spouses' earnings, career achievements, and education ("resources") affect their perceived decisionmaking power in the family. Are women who are "empowered" or have better outcomes (for example, more education, work outside the home, earn more than their husband, own land, not married as a child/adolescent, and unbound by more restrictive marriage customs) more likely to agree or disagree with their husbands? If they agree, do they agree that decisionmaking is joint/more balanced? Correspondingly, are women with poorer outcomes in these areas more likely to agree with their husbands that their husbands are responsible? Understanding whether different types of disagreement reflecting one spouse "giving" or "taking" power from the other are consistent with their relative outcomes or achievements in other areas is important for measurement.

Using the DHS surveys from Sub-Saharan Africa, Tables 5a-5b below provide summary statistics for responses given by married respondents (R) and their husbands/partners (H) for decisionmaking, including whether differences between spouses' responses are statistically significant. Table 1a presents summary statistics for large household purchases, and Table 1b looks at use of husband's earnings. For both decisionmaking domains, the results tell us three things: (1) by far, the greatest share of responses for both decisions center around joint decisionmaking or sole decisionmaking by the husband/partner, reflecting results from other studies; (2) differences across spouses' responses are statistically significant across nearly all country surveys, although the magnitude of these differences is not very large; (3) although it is common for the husband to report joint decision-making while the woman says the husband is solely responsible, there is no general pattern of men attributing a greater weight to women's role than

the women themselves in the data, unlike studies mentioned above (similar to findings from Ghuman et al., 2006).

**Table 5a. Decisionmaking:
Person who usually decides on large household purchases***

		Share of respondents (R) and husband/partners (H) reporting:								
		Respondent alone			Respondent and husband/partner			Husband/ partner alone		
		R	H	Diff	R	H	Diff	R	H	Diff
Benin	2011	0.10	0.07	0.03***	0.44	0.20	0.24***	0.46	0.73	-0.27***
Burkina Faso	2010	0.01	0.03	-0.02***	0.16	0.15	0.01	0.81	0.80	0.01*
Burundi	2010	0.06	0.02	0.04***	0.54	0.50	0.04**	0.40	0.48	-0.08***
Cameroon	2011	0.12	0.12	0.00	0.38	0.27	0.11***	0.48	0.61	0.13***
Comoros	2012	0.23	0.21	0.02	0.30	0.36	-0.06***	0.46	0.42	0.04
Cote d'Ivoire	2011	0.08	0.04	0.04***	0.28	0.28	0.00	0.63	0.66	-0.03*
DRC	2013	0.13	0.10	0.03***	0.46	0.48	0.02*	0.41	0.41	0.00
Ethiopia	2011	0.05	0.04	0.01***	0.60	0.67	-0.07***	0.34	0.28	0.06***
Gambia	2013	0.06	0.03	0.03***	0.43	0.36	0.07***	0.50	0.60	-0.10***
Ghana	2008	0.14	0.07	0.07***	0.43	0.41	0.03	0.42	0.51	-0.09***
Kenya	2008	0.10	0.07	0.03**	0.55	0.50	0.05**	0.35	0.42	-0.07***
Lesotho	2009	0.12	0.18	-0.06***	0.64	0.61	0.03	0.19	0.21	-0.02
Liberia	2013	0.22	0.17	0.05***	0.60	0.58	0.02	0.17	0.25	-0.08***
Madagascar	2009	0.17	0.31	-0.13***	0.69	0.53	0.16***	0.13	0.16	-0.03**
Mali	2012	0.06	0.09	-0.03***	0.11	0.07	0.04***	0.82	0.82	0.00
Mozambique	2011	0.13	0.11	0.02**	0.48	0.50	-0.02	0.37	0.37	0.00
Namibia	2013	0.24	0.18	0.06***	0.59	0.65	-0.06***	0.17	0.17	0.00
Nigeria	2013	0.05	0.23	-0.18***	0.32	0.26	0.06***	0.62	0.50	0.12***
Rwanda	2010	0.04	0.03	0.01	0.67	0.67	0.00	0.29	0.29	0.00
Senegal	2014	0.02	0.01	0.01**	0.18	0.25	-0.07***	0.69	0.56	0.12***
Sierra Leone	2013	0.05	0.17	-0.12***	0.50	0.38	0.12***	0.44	0.44	0.00
Uganda	2011	0.14	0.10	0.04***	0.46	0.48	-0.02	0.40	0.42	-0.02
Zambia	2013	0.10	0.08	0.02***	0.55	0.58	-0.03***	0.34	0.33	0.01
Zimbabwe	2011	0.17	0.14	0.03***	0.71	0.76	-0.05***	0.12	0.10	0.02***

Notes:

(1) Source: Demographic and Health Surveys (Waves 5 and 6) for Sub-Saharan Africa.

(2) Diff = T-tests for whether differences in respondent's (R) and husband's (H) responses were statistically significant. *** p<0.01, ** p<0.05, * p<0.1

*In the men's questionnaire, the question was asked "who should have a greater say in large household purchases?"

**Table 5b. Decisionmaking:
Person who usually decides how to spend husband's earnings**

		Share of respondents (R) and husband/partners (H) reporting:								
		Respondent alone			Joint			Husband/ partner alone		
		R	H	Diff	R	H	Diff	R	H	Diff
Benin	2011	0.16	0.03	0.13***	0.25	0.09	0.16***	0.59	0.88	-0.29***
Burkina Faso	2010	0.02	0.04	-0.02***	0.05	0.12	-0.07***	0.93	0.83	0.10***
Burundi	2010	0.01	0.02	-0.01**	0.64	0.55	0.09***	0.34	0.42	-0.08***
Cameroon	2011	0.08	0.05	0.03***	0.35	0.35	0.00	0.56	0.60	-0.04***
Comoros	2012	0.16	0.13	0.03**	0.31	0.39	-0.08***	0.51	0.48	0.03
Cote d'Ivoire	2011	0.06	0.02	0.04***	0.18	0.25	-0.07***	0.76	0.72	0.04**
DRC	2013	0.07	0.07	0.00	0.49	0.49	0.00	0.43	0.44	0.01
Ethiopia	2011	0.05	0.03	0.02***	0.67	0.73	-0.06***	0.27	0.23	0.04***

Gambia	2013	0.05	0.01	0.04***	0.16	0.25	-0.09***	0.77	0.73	0.04**
Ghana	2008	0.06	0.03	0.03***	0.37	0.44	-0.07***	0.56	0.52	0.04**
Kenya	2008	0.06	0.03	0.03***	0.53	0.55	-0.02	0.38	0.42	-0.04*
Lesotho	2009	0.18	0.13	0.05**	0.55	0.71	-0.15***	0.13	0.15	-0.02
Liberia	2013	0.08	0.12	-0.04***	0.66	0.68	-0.02	0.23	0.20	0.02
Madagascar	2009	0.23	0.16	0.07***	0.66	0.72	-0.06***	0.08	0.12	-0.04***
Mali	2012	0.09	0.04	0.05***	0.04	0.03	0.01**	0.87	0.92	-0.05***
Mozambique	2011	0.10	0.05	0.05***	0.42	0.42	0.00	0.45	0.52	-0.07***
Namibia	2013	0.13	0.11	0.02	0.57	0.65	-0.08***	0.24	0.24	0.00
Nigeria	2013	0.03	0.09	-0.06***	0.24	0.16	0.08***	0.71	0.74	-0.03***
Rwanda	2010	0.03	0.03	0.00	0.68	0.75	-0.07***	0.29	0.23	0.07***
Senegal	2014	0.02	0.001	0.019***	0.14	0.14	0.00	0.82	0.85	-0.04***
Sierra Leone	2013	0.05	0.13	-0.08***	0.38	0.34	0.04***	0.54	0.53	0.01
Uganda	2011	0.06	0.05	0.01	0.41	0.57	-0.16***	0.52	0.39	0.13***
Zambia	2013	0.08	0.07	0.01***	0.58	0.65	-0.07***	0.31	0.28	0.03***
Zimbabwe	2011	0.11	0.06	0.05***	0.74	0.84	-0.10***	0.11	0.10	0.01**

Notes:

(1) Source: Demographic and Health Surveys (Waves 5 and 6) for Sub-Saharan Africa.

Diff = T-tests for whether differences in respondent's (R) and husband's (H) responses were statistically significant. *** p<0.01, ** p<0.05, * p<0.1

What are the most common types of agreement? Figures 2a-2b present the distribution of responses across countries where couples agree, for both areas of decisionmaking. As with Tables 5a-5b, the figures show very little evidence across countries that either the respondent or her husband attribute sole responsibility for either decision to her. Where couples agree on decisionmaking, it is nearly always that both agree decisionmaking is joint (occurring much more frequently in the case of large household purchases) or that both agree the husband is the sole decisionmaker. Figures 2a-2b also show that in many countries, couples who agree are much more likely to agree that decisionmaking is joint over large household purchases as compared to use of the husband's earnings. Figure 1a also shows that in nearly all countries, for large household purchases, the share of couples agreeing overall is around 50 percent. For husband's earnings, however, the variation in the share of couples agreeing (and hence disagreeing) is much greater.

Figure 2. Share of responses where couples agree on decisionmaking roles, DHS wave 5 and 6 data

Figure 2a. Who makes decision over large household purchases

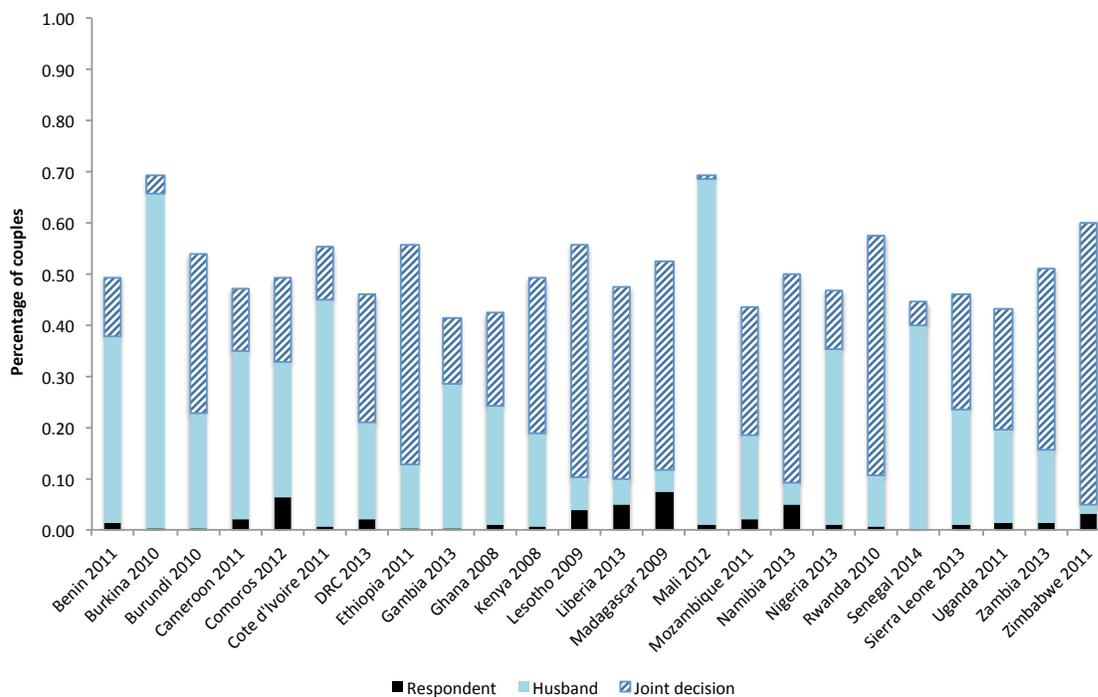
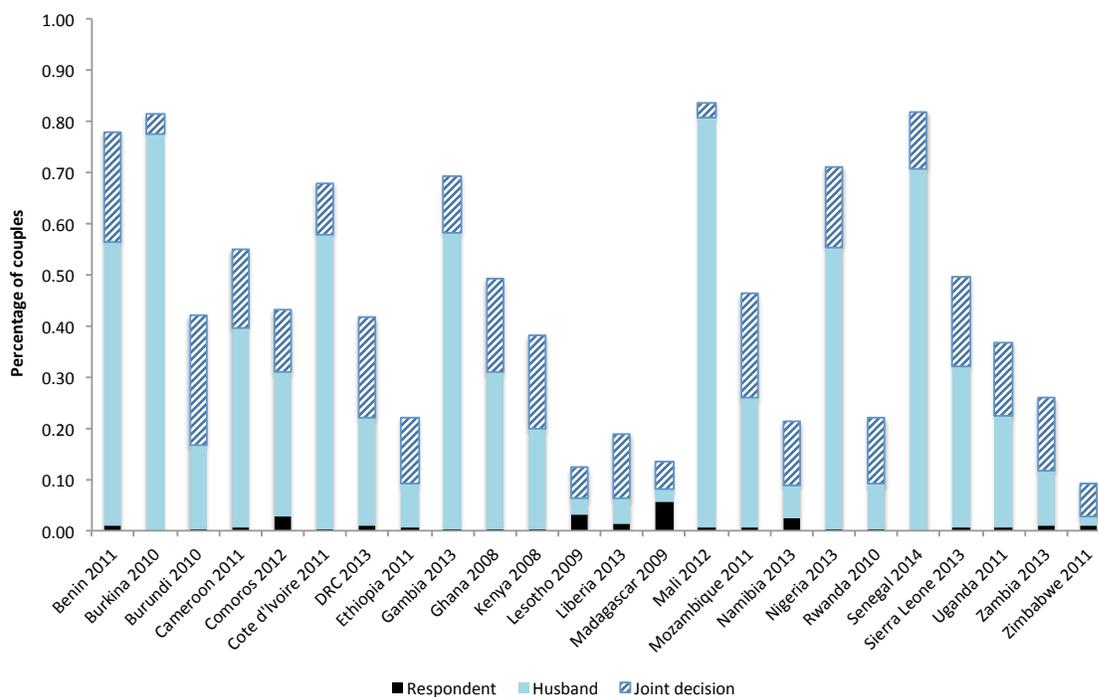


Figure 2b. Who makes decision over use of husband's earnings



As for disagreement, Tables 6a and 6b below present the share of couples' responses (average across countries) There are two primary scenarios where couples disagree – (1) the respondent says decisionmaking is joint, and her husband says he is solely responsible (extent of disagreement much greater in the case of use over husband's earnings, which is expected), and (2) respondent says the husband is responsible, but he says decisionmaking is joint. For (1), the husband “takes power” from the wife (or, as discussed in Burns (1977), the husband “presumes” or over-estimates his power relative to the wife's assessment). For (2), the wife under-estimates her role relative to the husband's assessment, and the husband “gives” decisionmaking power to her. Table 6a shows that, across countries when couples disagree over the use of husband's earnings, husbands are nearly twice as likely to presume power on average. On the other hand, Table 6b shows that for large household purchases there is greater balance on average across presumed and conceded disagreement. Adding up the shares across cells, the data also show that while “someone else” is a response option in the decisionmaking questions, spouses almost never reported this option.

**Table 6a. Share of couples' responses (average across countries):
who usually decides on use of husband's earnings**

	Husband says decisionmaker is usually:		
	Respondent	Husband	Joint
Respondent says decisionmaker is usually:			
Respondent	0.01 [0.01]	0.03 [0.02]	0.04 [0.03]
Husband	0.02 [0.02]	0.31 [0.25]	0.14 [0.06]
Joint	0.03 [0.02]	0.27 [0.20]	0.13 [0.06]

Notes:

(1) Standard deviations in brackets. Average shares reported across 24 countries, DHS wave 5 and 6 surveys from Sub-Saharan Africa

**Table 6b. Share of couples' responses (average across countries):
who usually decides on large household purchases**

	Husband says decisionmaker is usually:		
	Respondent	Husband	Joint
Respondent says decisionmaker is usually:			
Respondent	0.02	0.04	0.05

	[0.02]	[0.02]	[0.04]
Husband	0.04 [0.03]	0.24 [0.18]	0.13 [0.05]
Joint	0.05 [0.04]	0.16 [0.06]	0.25 [0.15]

Notes:

(1) Standard deviations in brackets. Average shares reported across 24 countries, DHS wave 5 and 6 surveys from Sub-Saharan Africa

What variables are correlated with agreement/disagreement in reported decisionmaking roles?

Using OLS regressions, we examine what demographic and socioeconomic factors are correlated spouses’ agreement and disagreement on decisionmaking roles over large household purchases and use of husband’s earnings. In particular, given the frequencies observed earlier, we focus on correlates of specific cases within agreement/disagreement that clearly illustrate different perceptions of how decisionmaking power is shared. First, within agreement, we examine factors associated with both spouses agreeing that the husband is the sole decisionmaker (“husband dominant” situations as discussed in Burns (1977)). Second, within disagreement, we examine the case where the husband believes he is the sole decisionmaker, but the wife believes decisionmaking is joint (the wife shifting away from the scenario in (1)).

The effects are not causal, but can provide some insight on how observed consistency in spouses’ responses are related to other factors such as age, education, and work status. For example, if women who work are more likely to disagree with their spouses on how decisions are made, it may be that their increased income is correlated with increased conflict in household decisionmaking (Heath, 2014 provides one example from Bangladesh), or perhaps their time is allocated differently across household activities, leading to confusion in decisionmaking roles. These correlations can shed light on different channels that need to be explored — factors affecting how individuals perceive decisionmaking — which affect how questions on decisionmaking should be augmented to better understand the decisionmaking process.

Among the household-level correlates we examined included area of residence (rural), sex of the household head, time to the nearest water source and household electrification (which can affect household members’ allocation of time), and wealth quantile. Characteristics of the respondent and husband that we controlled for included respondent’s age (whether 15-19, 20-34, or older), the age difference in years between spouses, other characteristics of the respondent’s marriage (whether she was

married as an adolescent, number of years she has been married, as well as whether she is in a polygamous marriage), number of living children as well as children who had died,¹² years (and years squared) of education for both spouses, and whether the respondent works (both overall and if she works outside the home). We also included a measure of whether the respondent condoned domestic violence, constructed as a dummy equal to one if she thought it was justified for a husband to beat his wife in any one of five different scenarios asked in the survey.¹³ Finally, we controlled for two additional variables based on the respondent's reports of whether she earned more money than her husband, and also whether she was the sole owner of the household landownings. Regional fixed effects were included in all regressions.

Tables 7 and 8a-8b below present OLS regression estimates for specific correlates that had greater explanatory power across countries for the agreement (husband sole decisionmaker) and disagreement (husband: sole, respondent: joint) scenarios. Full results for all variables are available upon request. Looking first at Table 3, for both decisionmaking over large purchases and husband's earnings, married women who are likely less "empowered" (adolescents, in a polygamous marriage, as well as having less egalitarian gender attitudes such as condoning domestic violence) are much more likely to agree with their husbands that the husband is the sole decisionmaker. There are some differences across domains of decisionmaking; the positive effects on husband-dominant decisionmaking roles of being an adolescent, as well as condoning domestic violence, are more prevalent for large household purchases as compared to use of husband's earnings. Being in a polygamous marriage, on the other hand, had similar widespread positive effects on this agreement scenario across both domains. In separate estimations, we also found that these coefficients flipped signs in the scenario where both spouses agreed that decisionmaking was joint, reflecting better outcomes for women in this scenario (results available upon request). Table 3 also shows that in the case of disagreement the coefficient signs tend to flip as well, indicating that women who are older, in monogamous marriages, and do not condone domestic violence are more likely to report joint decisionmaking, even if the husband disagrees. The robustness of these effects across countries is not as strong for disagreement as with agreement, however.

¹² Ghuman et. al. (2006) discuss how experiencing a child's death affected both husbands' and wives' assessment of the wives' ability to make decisions in the household.

¹³ These scenarios included (a) if she goes out without telling him, (b) if she neglects the children, (c) if she argues with him, (d) if she refuses to have sex with him, and (e) if she burns the food.

Table 7. Demographic and attitudinal correlates of spouses' agreement (A) and disagreement (D) in decisionmaking¹

	Large household purchases						Use of husband's earnings					
	(1)		(2)		(3)		(1)		(2)		(3)	
	Woman aged 15-19		Polygamous marriage		Woman condones domestic violence		Woman aged 15-19		Polygamous marriage		Woman condones domestic violence	
	A	D	A	D	A	D	A	D	A	D	A	D
Benin	0.11**	-0.13***			-0.06**		-0.12**				-0.06**	
Burkina Faso			0.09***	-0.04***	0.03*	-0.04***		0.08***	-0.02**			-0.01*
Burundi			0.10**			-0.06***		0.21***				-0.07**
Cameroon	0.07*			-0.07***	0.03*			0.12***	-0.06***			
Comoros					0.10***			0.14***			0.10***	
Cote d'Ivoire					0.10***			0.10***	-0.05***		-0.04*	-0.04***
DRC	0.08**		0.10***		0.04***			0.14***			0.06***	
Ethiopia	0.04*		0.09***		0.02**			0.08***			0.02*	
Gambia	0.10*		0.08**				-0.10**					
Ghana	0.23***		0.05*	-0.05*				0.12***	-0.09***		-0.09***	-0.05**
Lesotho												
Liberia	0.06*		0.05**			-0.05**	0.07**	0.07**			-0.04***	
Mali		-0.04*	0.08***		0.08***				-0.02*		0.07**	
Mozambique								0.07***				
Namibia				0.05*								-0.07**
Nigeria	0.11***		0.03*	-0.03***	0.06***	-0.02*	0.07***	-0.06***	0.06***	-0.02**		
Rwanda				-0.06**	0.04***	-0.04**			0.11***		0.03**	
Senegal			0.09***					0.08***	-0.07***			
Sierra Leone			0.04*		-0.04*	0.05***		0.08***	-0.05**			0.09***
Uganda	0.12*				0.07***	-0.05*		0.08*				
Zambia	0.05**		0.11***		0.05***		0.05*		0.11***		0.02**	
Zimbabwe			0.03***		0.02***			0.10***	0.03**			

Notes:

- (1) A = both spouses agree that husband is sole decisionmaker; D = disagreement; husband says he is sole decisionmaker, and respondent says decisionmaking is joint
(2) Regressions estimated by OLS; standard errors (suppressed) corrected for clustering at community level. *** p<0.01, ** p<0.05, * p<0.1. Full results with all variables, sample sizes and R2 are available in the Appendix.

Tables 8a and 8b present, from the same OLS regressions as above, what resource-related variables are associated with the same agreement and disagreement outcomes across domains. Again, on agreement, better education and employment outcomes for women (higher education, woman works, woman says she earns more than her husband), as well as higher husband's education, lower the likelihood of both agreeing the husband is the sole decisionmaker. As with the demographic and attitudinal variables described above, in separate estimations we found better education and employment outcomes for men and women also to be associated with agreement that decisionmaking was joint. The effects on

disagreement are more sparse, and the only consistent effect among these variables was that women who worked were more likely to say that decisionmaking was joint over large household purchases (this also held for two countries over use of husband's earnings). Looking at Tables 7 and 8a-8b together, the results show that variables related to cultural or social norms (polygamy and attitudes on domestic violence), as well as whether women work, are most strongly associated with the disagreement scenario. This downplays the notion that inconsistencies in decisionmaking stem primarily from confusion about decisionmaking roles, and suggests rather that women with greater freedom in these aspects might perceive their own role in decisionmaking differently. This is an area that needs further exploration, however.

Table 8a. Education and employment correlates of spouses' agreement/disagreement over decisionmaking, large household purchases¹

	Large household purchases							
	(1) Woman's years of schooling		(2) Husband's years of schooling		(3) Woman works		(4) Woman says she earns more than husband	
	A	D	A	D	A	D	A	D
Benin				0.01*	-0.16***	0.10***		-0.11***
Burkina Faso			-0.01**				-0.37***	0.19***
Burundi				-0.01**	0.06**			
Cameroon	-0.01***		-0.01***		-0.05**			-0.06*
Comoros	-0.01**				-0.11***			
Cote d'Ivoire	-0.02***		-0.01***		-0.11***	0.06**		
DRC	-0.01*							-0.06***
Ethiopia	-0.01**			-0.001**				
Gambia					-0.08**			
Ghana	-0.01***					0.12***		-0.10***
Lesotho	-0.03***							
Liberia					-0.08***	-0.04*		-0.11*
Mali								
Mozambique			-0.01*					
Namibia		0.01**						
Nigeria	-0.01***		-0.01***		-0.14***	0.04***		-0.07***
Rwanda		-0.001**						
Senegal								-0.22***
Sierra Leone						0.06**		
Uganda			-0.02*					-0.09***
Zambia								-0.03**
Zimbabwe								0.04*

Notes:

(1) A = both spouses agree that husband is sole decisionmaker; D = disagreement; husband says he is sole decisionmaker, and respondent says decisionmaking is joint

(2) Regressions estimated by OLS; standard errors (suppressed) corrected for clustering at community level. *** p<0.01, ** p<0.05, * p<0.1. Full results with all variables, sample sizes and R2 are available in the Appendix.

Table 8b. Education and employment correlates of spouses' agreement/disagreement over decisionmaking, use of husband's earnings¹

	Use of husband's earnings							
	(1) Woman's years of schooling		(2) Husband's years of schooling		(3) Woman works		(4) Woman says she earns more than husband	
	A	D	A	D	A	D	A	D
Benin			-0.02**	0.03***	-0.12***		-0.13**	-0.08**
Burkina Faso			-0.01***		0.05*		-0.33***	
Burundi		-0.03***						
Cameroon	-0.02***		-0.01**				-0.08*	
Comoros	-0.01***	0.01*	0.01*		-0.18***			
Cote d'Ivoire	-0.02**		-0.01**					
DRC	-0.01*				-0.05***			
Ethiopia	-0.01**			-0.001***			-0.06***	
Gambia			-0.01***		-0.08**			
Ghana	-0.01***		-0.01*				-0.11***	
Lesotho								
Liberia								-0.08**
Mali				-0.01***		0.03***	-0.28***	0.13**
Mozambique				-0.01*	-0.07**	0.06*		
Namibia							0.09*	
Nigeria	-0.02***	0.001***	-0.01**		-0.16***		-0.16***	
Rwanda			-0.001**					
Senegal							-0.45***	0.32***
Sierra Leone								
Uganda		-0.02*						
Zambia				0.01**		0.03**		
Zimbabwe								-0.03**

Notes:

(1) A = both spouses agree that husband is sole decisionmaker; D = disagreement; husband says he is sole decisionmaker, and respondent says decisionmaking is joint

(2) Regressions estimated by OLS; standard errors (suppressed) corrected for clustering at community level. *** p<0.01, ** p<0.05, * p<0.1. Full results with all variables, sample sizes and R2 are available in the Appendix.

In sum, the results show that differences across spouses' responses are statistically significant across nearly all DHS countries in Sub-Saharan Africa. While the magnitude of differences in reported decisionmaking between spouses is often not large across countries (Tables 1a-1b), looking at the actual combination of spouses' reports across different response options is also important for measurement. We find that women almost never report being solely responsible for decisions over large household

purchases and how their husband's earnings should be spent, and are much more likely to report joint decisionmaking in these areas as compared to their husbands. Women who report joint decisionmaking (as compared to saying their husbands are solely responsible for decisionmaking) are also more likely to have outcomes associated with greater influence across demographic/marriage characteristics, as well as education and employment. We still know comparatively less about what drives disagreement in decisionmaking as compared to agreement, but do find some systematic relationships between cultural norms, women's work status, and the likelihood of disagreement. This is an area for future work.

Other measures

Although questions on household decisionmaking are the most frequent approach to measuring individuals' ability to act on goals, a variety of other approaches have also been employed. We outline a few additional areas below—community level decisionmaking, lab-in-the-field experiments, and qualitative evidence from direct observations.

Community-level decisionmaking

Aside from household-level decisionmaking, issues that matter to the respondent may also exist at the community level. Ability to act at the community level has not been measured extensively in surveys, however, and when included has tended to focus on the ability to speak up in public and membership in groups/attendance of meetings. In a broad survey of the effects of a randomized poverty graduation program implemented in six countries, Banerjee et. al. (2015) included questions on whether respondents had spoken with village members about village concerns in the last year (Y/N), as well as the number of times respondents approached a village leader in the last year. And in a study of GoBifo, a randomized community-driven development project in Sierra Leone (reviewed further below), Casey, Glennerster and Miguel (2012) elicited women's attendance and ability to speak up in meetings, as well as different perceptions they had about community decisionmaking (the extent to which they felt decisions at meetings were made democratically — i.e., everyone's say was heard). Humphreys et. al. (2012) also surveyed men and women participating in a community-driven reconstruction program in the DRC on their attendance and other aspects of participation in the program, as well as on attitudes on women's rights and responsibilities in the community (surveying whether women should broadly have the same rights as men, the right for women to complain at the community level if they are mistreated by their husbands, and women's rights to have the same opportunities to occupy administrative or leadership positions in the community).

In the WEAI, respondents were asked whether they “feel comfortable speaking up in public about any issue that is important to you, your family or your community” (not at all comfortable; yes but with difficulty; yes, comfortably, N/A). Recently, this question was revised after cognitive testing in Uganda revealed that the word “issue” translates to problem or challenge in local languages and thus has a negative connotation (Sproule and Kovarik 2014). The revised question reads, “do you feel comfortable speaking up in public about *anything* that is important to you, your family or your community?” Despite this modification, this indicator has not been useful for WEAI analyses and in many places has been sensitive to collect (Malapit 2015).

Field experiments

Empirical work on intra-household bargaining in economics has also looked at individual’s ability to act on their goals and preferences. Recent studies in the field have typically used exogenous shocks or random variations to one household member’s bargaining power (such as income shocks or randomizing access to information) to understand how decisions and outcomes are affected by changes in bargaining power.

In an experiment from the Philippines, for example, Ashraf (2009) examines financial choices of married couples, by randomly varying whether choices on savings are private or observable to both spouses (both spouses are given the same sets of choices). Given full ability to act on goals, there should be no difference between the groups. However, she finds significant differences between how men and women allocate money across these different scenarios, although the effects are dependent on who is initially in control of savings.¹⁴ Ashraf, Field and Lee (2014) also conduct a randomized experiment on contraceptive use from Zambia, where a sample of women were either given access to contraceptives alone, or with their husbands. They find significantly lower outcomes for women who received access with their husbands in terms of seeking family planning services, use of concealable contraception; these women were also more likely to give birth over the study period.

A main benefit of field experiments is the ability to identify individual preferences and individual’s ability to act on the basis of these preferences. The above studies suggest that in field experiments,

¹⁴ Specifically, the study found that when choices were private, men put money into their personal accounts. When choices were observable, men used money for their own consumption. And when required to communicate with their spouses, men deposited money into their wives’ account. Significant variations do not emerge across the scenarios for women’s decisions, and the study finds that the differences in these effects across men and women depend more on who is in initial control of savings in the household as opposed to gender effects — men whose wives control household savings respond more strongly to the treatment and women whose husbands control savings exhibit the same response.

researchers can directly observe the intra-household bargaining process. However, aside from the standard criticisms randomized experiments - such as whether one can extrapolate from the experimental setting to predict real world outcomes - their usefulness in understanding agency also depends on whether the policy focus is narrow (specific to one domain, for example, such as savings) or a broader understanding of agency is important (spanning multiple domains).

Direct observations

Respondents' ability to act can also be measured through direct observation. At a basic level, this could include measuring individual outcomes in the household that are directly verifiable, such as women working outside the household, family planning, or involvement in children's education. Moreover, recent observational studies on decisionmaking have also linked up with community-driven development projects, where individuals' actions are more easily observable through village committees and discussions organized by these projects. Rao et. al. (2015), for example, conducted qualitative interviews women in treatment and control villages covered by the large-scale *Jeevika* poverty alleviation project in rural Bihar; which involved observing their participation in problem solving, arbitration and creating alternatives to the rule of existing village leaders through self-help groups created by the project. Another example is the study of the GoBifo project in Sierra Leone mentioned above, which provided grants to communities across 236 villages and assistance in setting up Village Development Committees (VDCs) to plan how these funds would be used. Women's participation in these VDCs was integral to the project, and was measured through direct observation of respondents' participation in different types of groups, attendance at community meetings, ability to speak up in meetings, as recorded by agents/enumerators attending the meeting,. Such direct observation can shed light on respondents' actions, although again the dynamics of the decisionmaking process (particularly within the household) may be more difficult to assess with this approach.

Where are we headed?

Above, we have reviewed different measurement methods for capturing women's ability to act on their goals, and findings to date on their relative quality. Four key priorities for future work emerges from this review: 1) continuing work on cross-reporting (differences in spouses' or household members' reported decisionmaking roles) and its consequences for understanding women's agency, 2) exploring varying response options for decisionmaking questions across domains, 3) capturing the process leading up to final decisionmaking, and 4) triangulation across the reviewed measurement methods.

First, future research should continue exploring what we can learn from cross-reporting within the household about women's ability to act. This will include both conducting survey work with multiple members within a household, and continuing the exploratory analytical work presented above. The latter will help shed light on how consistent correlations between spousal disagreement and particular socioeconomic/demographic characteristics are across contexts, and what we can learn about decisionmaking process through them. Moreover, it will be important to understand to what extent disagreement over decisionmaking roles matters for outcomes. For example, how does the relationship between a woman's decisionmaking power and outcomes like child mortality, education and nutrition change when she herself vs. the husband is assessing her decision-making power, and what does this tell us about decisionmaking processes in the household? Without clear identification criteria, however, endogeneity issues can cloud the interpretation of results. Our analysis from the DHS, for example, found a strong role of community fixed effects on specific combinations of responses across spouses. Unobserved characteristics therefore play a large role, and are potentially related to community norms that often go unaddressed in household survey questionnaires.

Second, the consequences of using a uniform response structure across domains in decisionmaking questions, versus ones that are more tailored to decisionmaking processes specific to those domains, should be explored. For specific domains that are important to program implementers or researchers, valuable information might be missed by not tailoring decisionmaking questions to the actual process, which could be joint but "sequential" for some domains. For example, Kabeer (1999) cites a 1996 study from Egypt where men were typically the final decisionmaker over whether to use contraceptives, but women were left to decide what type to use.

Third, the decisionmaking process should be further unpacked in survey questions to better reflect women's agency. As discussed above, this includes collecting additional information on whether the woman is consulted and feels her opinion is valued – especially in cases where she does not describe herself as the main decisionmaker – or who makes the final decision in the case of disagreement. Moreover, understanding how frequently decisions are made and decisionmaking roles change could also be useful. Some of these issues are tied with existing decisionmaking hierarchies and social norms as well; understanding whether decisionmaking is transformative or challenges existing norms is therefore also important. For example, in addition to questions on the status quo in terms of who makes the final decision in the household, respondents could also be asked whether they have taken efforts to change the way specific decisions are made to reflect their preferred view.

Lastly, future research should triangulate between different tools for measuring women's ability to act in order to better understand how measured agency differs between approaches, and how one measurement approach could complement another. For example how does ability to act as elicited through decisionmaking questions in surveys for a particular domain compare to ability to act in that domain as observed through lab-in-the-field experiments? How do responses in surveys contrast to direct observations, and what does this tell us about how to improve survey questions? This avenue could be especially fruitful for capturing women's ability to act outside of the household (e.g., at the community level), where good survey-based measures are particularly scarce. Triangulating across different measurement methods is not only useful within this last dimension of agency, however – below, turn to research priorities across the three dimensions.

6. Priorities for future research (cross-dimensional)

As we have argued, measuring sense of agency is important both intrinsically, in order to fully capture agency, and instrumentally, as it has been tied to a range of important outcomes in the areas of health, education and labor. Important areas for future research include the following:

Analyze the three dimensions together, across contexts, to uncover relationships and prioritize survey questions: As mentioned in Section 2, although goal-setting, perceived sense of agency and acting on goals are three distinct concepts, they are related and can influence each other. Future research should examine links between the three, particularly through targeted interventions, to better understand the process of women's agency.

First, measures aimed at capturing a woman's goals and preferences should be collected alongside measures of a woman's ability to act (such as decisionmaking questions), as agency is the ability to define one's goals and act on them. However, measuring the three dimensions of agency is not only necessary to fully capture agency. Rather, measurement of one dimension can also help us better interpret and address shortcomings in the measure of the other. For example, how is the capacity of an individual to define goals that are consistent with their values influenced by their sense of control to achieve these goals? How do decision-making arrangements within the household impact an individual's sense of self-efficacy and perceived control, and what is the relationship between self-efficacy measures in particular domains and

decision-making in those domains? Analyzing these questions can help to also shed light on the question of the meaningfulness of generalized self-efficacy as a measure of women's agency.

For example, Seymour and Peterman (2016) show how information from the RAI can be used in concert with standard decisionmaking indicators to attenuate the problems associated with measuring women's agency in terms of decisionmaking. Specifically, they sought to decipher how women's agency is manifested, perceived and understood across contexts by comparing women's participation in decisionmaking with women's autonomous motivation within given domains. They conclude that in the eyes of women in Bangladesh, both sole and joint decisionmaking reflect meaningful voice in the decisionmaking process, and thus, both should be used in the construction of indicators of agency. However, in Ghana, only sole decisionmaking should be used as a measure of agency as joint or non-participation in decision-making were not correlated with higher levels of autonomous motivation. Moreover, given the domain-specific variations they observe in the relationship between autonomy and decisionmaking, they advise researchers to construct agency indicators across different domains.

Broaden the scope of measures to include other age groups: Within the three dimensions, measurement tools should be adapted to adequately capture agency for a wider range of age groups, from young girls to older women. Not only will this increase our understanding of agency across the lifecycle, but it will also allow us to examine how agency is correlated and transmitted across multiple generations within families and communities. Nearly all of the measures we have covered above have been validated and used with adult women between 18 and 50. In this process of adaptation, information gleaned from the validation process of LOC scales originally developed for adults and later adapted for children could be used, such as the Bialar-Cromwell Locus of Control Scale (Bialer 1961). Beyond the wording, part of this will entail a revision of domains that are included in such scales to capture manifestations of agency that are most salient for different groups, as well as potentially including questions on expectations of how major decisions would be made in the future, which could be asked of younger age groups. For example, adult women are asked about their ability to visit a health clinic or marketplace; however, a more relevant example for younger girls could ask about their ability to walk to school.

Systematically adapt measures to local contexts: Another priority for future research is using a more systematic approach for adapting measures within our three dimensions across local contexts, and summarizing lessons from iterative processes of qualitative and quantitative data collection. Having a clear conceptualization is the first step in this, as it will guide what criteria should be used for whether a tool is a meaningful measure of agency in a certain context. This is particularly important when the

preferences of the respondent – their own goals and values – are the centerpiece of agency. Indeed, Klein (2014) observed that women from different regions in Mali often had very different ideas about what it means to be empowered. Developing a standardized set of questions to determine what local characteristics lead to different manifestations of women’s agency may provide insight into adaptation processes. Moreover, measurement of the psychological scales described above requires a more standardized approach for validation across contexts. In particular, cross-cultural validation should be conducted by assessing comprehension (e.g., via cognitive testing) and reliability (e.g., via the internal consistency of the scale in the new context). Moreover, factor and cluster analysis, as performed by Vaz et al. (2016) to validate the RAI in Chad, can be used to compare data patterns that emerge in the new context versus the original validation context.

An overarching goal of future research on measuring women’s agency should be to successfully map measures to research questions within a particular context. For example, if the main aim of measuring agency is to assess its role as a mediator between cash grant provision and increased children’s education, specific measures of agency might be more suitable than others. Another example is condom use negotiation, where it would be helpful to know whether self-efficacy, goal-setting, or decision-making components of agency should be targeted in program efforts or in survey research as the appropriate mediator. If the key factor in improving condom use relates to increases in a women’s self-efficacy in negotiating condom use with her partner, then sexual health education campaigns should center their actions on these activities. On the other hand, if goal-setting is the most salient pathway to increasing condom use, then instructional campaigns to increase goal-setting capacity may be the most effective method of increasing condom use. Further, improvements in measurement and increased specificity in different components of agency may also reduce the need to ask women superfluous survey questions and create more cost- and time- efficient surveys to evaluate programming. Overall, improving the measurement of women’s agency in a given context and domain is critical to ensure that programming and policies, whether grassroots or government-led, are relevant and meaningful to the lives of women. Better measurement is imperative for tracking our progress in promoting women’s agency, designing interventions to address gender-based constraints, and for rigorously evaluating their impact.

7. Appendix

	Wording of decisionmaking questions	Decisions covered in [X]	Additional variables collected: Individual-level proximate determinants/outcomes of agency
Demographic and Health Surveys (DHS) – sample: women 15-49 and, in some cases, their husbands/partners; 89 countries	(1) “Would you say that [X] is: (a) <i>mainly your decision</i> , (b) <i>mainly your (husband's/partner's) decision</i> , or (c) <i>did you both decide together?</i> ”	- Using contraception	- Preferences for fertility and family planning - Marital status - Education - Age at first marriage, sexual intercourse, when had first child - Employment and type of earnings - Ownership of land - Health outcomes (anemia, illness/disease) - Experienced physical/sexual violence (including whether sought treatment) - Constraints to seeking health care - Use of mass media and technology (including owning a mobile phone)
	(2) “Who usually makes decisions about [X]: (a) <i>respondent</i> , (b) <i>husband/partner</i> , (c) <i>respondent and husband/partner jointly</i> , (d) <i>someone else</i> , (e) <i>other?</i> ”	- How respondent’s earnings will be used - How husband/partner’s earnings will be used (<i>also asked of spouse</i>) - Health care for respondent - Large household purchases (<i>also asked of spouse</i>) - Visits to family/relatives	
Women’s Empowerment in Agriculture Index (WEAI) – sample : adult women and their husbands/partners	(1) Did you participate in [X] in the last 12 months (that is, during the last one/two cropping seasons)? (Y/N)	- Food crop farming - Cash crop farming - Livestock - Nonfarm economic activities - Wage and salary employment - Fishing	- Marital status* - Education* - Employment and type of earnings* - Participation in community organizations (agricultural producer’s groups, local government, credit or microfinance, etc.) - Confidence in voicing concerns in public forums (five-category response) - Individual time diary on activities in the last 24 hours, and individual satisfaction with leisure time (scale of 1-10)
	How much input did you have for [X, and separately, income generated from X]: (2) (a) <i>no input or input in few decisions</i> , (b) <i>input into some decisions</i> , (c) <i>input into most decisions</i> , (d) <i>input into all decisions</i> , (e) <i>no decision made</i>	- Food crop farming - Cash crop farming - Livestock - Nonfarm economic activities - Wage and salary employment - Fishing	
	For different types of productive capital [X], who would you say: (a) <i>owns most of each item</i> , (b) <i>can decide whether to sell item most of the time</i> , (c) <i>can decide whether to give away item most of the time</i> , (d) <i>who can decide to mortgage or rent out item most of the time</i> , and (e) <i>who contributes to new decisions regarding a new purchase of item?</i> <u>Options:</u>	- Agricultural land - Large livestock - Small livestock - Poultry - Fish - Farm equip. (non-mechanized) - Farm equip. (mechanized) - Nonfarm business equip. - House or other structures - Large consumer durables - Small consumer durables - Cell phone - Other land not used for agr. purposes - Bicycle, motorcycle, car	
	(3) - <i>Self</i> - <i>Partner/spouse</i> - <i>Self and partner/spouse jointly</i> - <i>Other HH member</i> - <i>Self and other HH member(s)</i> - <i>Partner/spouse and other household member(s)</i> - <i>Someone (or group of people) outside the HH</i> - <i>Self and other outside people</i> - <i>Partner/spouse and other outside people</i> - <i>Self, partner/spouse and other outside people</i>		
For different financial sources [X]: (4) (a) <i>who made the decision to borrow from [X] in the last 12 months</i> , and (b) <i>who makes the decision</i>	- NGO - Informal lender - Formal lender		

about what to do with the money/item borrowed from [X]?
(Options are same as in (3) above)

- Friends or relatives
- Group-based MFIs

When decisions are made regarding [X]:
(a) who is it that normally takes the decision, (b) to what extent do you feel like you can make your own personal decisions regarding these aspects of household life if you want(ed) to (not at all, small extent, medium extent, to a high extent)?

Options for (a):

- (5) - "Main male" HH member or husband
- "Main female" HH member or wife
- Husband and wife jointly
- Someone else in the household
- Jointly with someone else inside the household
- Jointly with someone else outside the household
- Someone outside the household/other
- Decision not made

- Agricultural production
- Getting inputs for agr. production
- Types of crops to grow for agr. production
- Taking/not taking crops to market
- Livestock raising
- Nonfarm business activity
- Respondent's own wage/salary employment
- Major household purchases
- Minor household expenditures
- Whether or not to use family planning to space or limit births

Vignettes : for each situation below, respondent is asked:

(a) Are you like this person (Y/N)? (b) If yes, are you completely the same or somewhat the same? (c) If no, or are you completely different or somewhat different?

-Person's actions in [X] are determined by situation; no other options.

- Person is doing [X] because that's what spouse or other member of group/community tells her/him

- (6) -Person is doing [X] because that's what he/she feels her family or community expect - wants them to approve of him/her as a good farmer/businessperson
- Person makes his/her own choices about [X] based on what he/she thinks is best for family and business. If person changed his/her mind, he/she could act differently.

- Agricultural production
- Getting inputs for agr. production
- Types of crops to grow for agr. production
- Taking/not taking crops to market
- Livestock raising
- Nonfarm business activity
- Respondent's own wage/salary employment
- Major household purchases
- Minor household expenditures
- If respondent has a serious health problem
- How to protect herself from violence
- Whether and how to express religious faith
- Kinds of tasks to do on a particular day
- Whether or not to use family planning to space or limit births

* Separate module in the WEAI

8. References

[to be completed]

Abramsky, Tanya, Karen M Devries, Lori Michau, Janet Nakuti, Tina Musuya, Nambusi Kyegombe, Charlotte Watts. 2016. "The impact of SASA!, a community mobilisation intervention, on women's experiences of intimate partner violence: secondary findings from a cluster randomised trial in Kampala, Uganda." *Journal of Epidemiology and Community Health* 0:1-8.

Agarwal, B., 1997. "Bargaining" and Gender Relations: Within and Beyond the Household. *Feminist economics*, 3(1), pp.1-51.

Agarwala, Rina, and Scott M. Lynch. 2006. "Refining the Measurement of Women's Autonomy: An International Application of a Multi-dimensional Construct." *Social Forces* 84(4): 2077-98

Anderson, Siwan, and Mukesh Eswaran. 2009. "Determinants of female autonomy: evidence from Bangladesh." *Journal of Development Economics* 90(2).

Ashraf, Nava. 2009. "Spousal control and intra-household decision making: an experimental study in the Philippines." *American Economic Review*, 99(4): 1245-77.

Ashraf, Nava, Erica Field, and Jean Lee. 2014. "Household Bargaining and Excess Fertility: An Experimental Study in Zambia." *American Economic Review*, 104(7): 2210-37.

Balk, Deborah. 1994. "Individual and Community Aspects of Women's Status and Fertility in Rural Bangladesh." *Population Studies* 48(1): 21-45.

Bandiera, Oriana, Niklas Buehren, Robin Burgess, Markus Goldstein, Selim Gulesci, Imran Rasul and Munshi Sulaimany. 2015. "Women's Empowerment in Action: Evidence from a Randomized Control Trial in Africa." Working Paper.

Banerjee, Abhijit, Esther Duflo, Nathanael Goldberg, Dean Karlan, Robert Osei, William Parienté, Jeremy Shapiro, Bram Thuysbaert, and Christopher Udry. 2015. "A Multi-faceted Program Causes Lasting Progress for the Very Poor: Evidence from Six Countries." *Science*.

Bandura, Albert. 1982. "Self-efficacy mechanism in human agency." *American Psychologist* 37(2): 122-147.

Bandura, Albert. 2006. "Guide for constructing self-efficacy scales." in Frank Pajares & Tim Urdan (eds.). *Self-efficacy beliefs of adolescents*, (Vol. 5., Chapter 14, pp. 307-337).

Bernard, T., Dercon, S., Orkin, K. and Taffesse, A.S., 2014. *The Future in Mind: Aspirations and Forward-Looking Behaviour in Rural Ethiopia* (No. 2014-16). Centre for the Study of African Economies, University of Oxford.

Bertrand, Marianne, and Sendhil Mullainathan. 2001. "Do people mean what they say? Implications for subjective survey data", *American Economic Review Papers & Proceedings*, 91(2): 67-72.

Blood, R., and Wolfe, D. (1960). *Husbands and Wives: The Dynamics of Married Living*. New York: Free Press.

Bond, Timothy, and Kevin Lang. 2014. "The sad truth about happiness scales." NBER Working Paper No. 19950.

Bowles, Samuel, Steven N. Durlauf, Karla Hoff (eds.) 2011. *Poverty Traps*. Princeton University Press and Russell Sage Foundation.

Bound, John, Charles Brown, and Nancy Mathiowetz. 2001. "Measurement error in survey data." in Edward Leamer and James Heckman (eds.), *Handbook of Econometrics*, V.5, 3705-3843.

Burns, Alvin C. 1977. "Husband and Wife Decision-Making Roles: Agreed, Presumed, Conceded." *Advances in Consumer Research* 4: 50-55.

Casey, Katherine, Rachel Glennerster and Edward Miguel. 2013. "Reshaping Institutions: Evidence on Aid Impacts Using a Preanalysis Plan." *The Quarterly Journal of Economics* 127 (4): 1755-1812.

Chirkov, Valery I., Richard M. Ryan, and Ken M. Sheldon (Eds.). 2011. *Human autonomy in cross-cultural context: Perspectives on the psychology of agency, freedom, and well-being*. New York: Springer.

Cicchetti, Dante (Eds.). 2016. *Developmental psychopathology: Theory and method (Vol. 1, 3rd ed.)*. New York: Wiley.

Cilliers, Jacobus, Oeindrila Dube, and Bilal Siddiqi. 2015. "The white-man effect: How foreigner presence affects behavior in experiments." *Journal of Economic Behavior and Organization* 118: 397-414.

Davis, H. L. and B. P. Rigaux. 1974. "Perceptions of Marital Roles in Decision Processes." *Journal of Consumer Research* 1: 51-62.

de Brauw, Alan, Daniel O. Gilligan, John Hoddinott and Shalini Roy. "The Impact of Bolsa Familia on Women's Decision-Making Power." *World Development* 59.

Delavande, Adeline, Xavier Gine and David McKenzie. 2011. "Eliciting probabilistic expectations with visual aids in developing countries: how sensitive are answers to variations in elicitation design?" *Journal of Applied Econometrics*, 26(3): 479-497.

Devine, Joe, Laura Camfield, and Ian Gough. 2008. "Autonomy Or Dependence – Or Both? Perspectives From Bangladesh." *Journal of Happiness Studies* 9:105-138.

Dixon, D.N., McKee, C.S. and McRae, B.C., 1976. Dimensionality of three adult, objective locus of control scales. *Journal of Personality Assessment*, 40(3), pp.310-319.

Do, Mai and Nami Kurimoto. 2012. "Women's empowerment and choice of contraceptive methods in selected African countries." *International Perspectives on Sexual and Reproductive Health* 38(1): 23-33.

Doss, Cheryl R. 2013. "Intrahousehold Bargaining and Resource Allocation in Developing Countries." *World Bank Research Observer* 28 (1): 52-78.

Doss, Cheryl R., and Ruth Meinzen-Dick. 2015. "Collective action within the household: insights from natural resource management." *World Development* 74: 171–83.

Doss, Cheryl, Kieran, Caitlin, and Kilic, Talip. *forthcoming*. "Measuring ownership, control, and use of assets."

Ellsberg Mary, Diana J Arango, Matthew Morton, Floriza Gennari, Sveinung Kiplesund, Manuel Contreras, and Charlotte Watts. 2015. "Prevention of violence against women and girls: what does the evidence say?" *Lancet* 385:1555–66

Engle, Patrice L., Purnima Menon, and Lawrence Haddad. 1999. "Care and nutrition: concepts and measurement." *World Development* 27(8): 1309-1337.

Feigenberg, Benjamin, Erica Field, Rohini Pande, Natalia Rigol and Shayak Sarkar. 2014. "Do Group Dynamics Influence Social Capital Gains Among Microfinance Clients? Evidence from a Randomized Experiment in Urban India." *Journal of Policy Analysis and Management* 33(4): 932–949.

Field, Erica; Seema Jayachandran, Rohini Pande, Natalia Rigol. 2015. "Friendship at Work: Can Peer Effects Catalyze Female Entrepreneurship?" Working Paper.

Fernandez, Antonia, Marina Della Guista, Uma S Kambhampati. 2015. "The intrinsic value of agency: the case of Indonesia." *World Development* 70:92-107.

Frese, M., Krauss, S.I., Keith, N., Escher, S., Grabarkiewicz, R., Luneng, S.T., Heers, C., Unger, J. and Friedrich, C., 2007. Business owners' action planning and its relationship to business success in three African countries. *Journal of Applied Psychology*, 92(6), p.1481.

Friston, K., 2012. Prediction, perception and agency. *International Journal of Psychophysiology*, 83(2), pp.248-252.

Furnham, A., 1986. Economic locus of control. *Human relations*, 39(1), pp.29-43.

Furuta, Marie and Sarah Salway. 2006. "Women's position within the household as a determinant of maternal health care use in Nepal." *International Family Planning Perspectives* 32(1): 17-27.

Gammage, Sarah, Naila Kabeer & Yana van der Meulen Rodgers. 2015. "Voice and agency: where are we now?" *Feminist Economics*.

Ghuman, Sharon, Hedy Lee, and Herbert L. Smith. 2006. "Measurement of women's autonomy according to women and their husbands: Results from five Asian countries." *Social Science Research*, 35(1): 1-28.

Golla, Anne Marie, Anju Malhotra, Priya Nanda, and Rekha Mehra. 2011. "Understanding and measuring women's economic empowerment: definition, framework and indicators." ICRW Report, Washington, DC.

Haggard, P. and Eitam, B. eds., 2015. *The Sense of Agency*. Oxford University Press.

Heath, Rachel. 2014. "Women's access to labor market opportunities, control of household resources, and domestic violence." *World Development* 57: 32-46.

Heckman, J.J., Stixrud, J. and Urzua, S., 2006. The Effects of Cognitive and Noncognitive Abilities on Labor Market Outcomes and Social Behavior. *Journal of Labor Economics*, 24(3), pp.411-482.

Heckman, J.J. and Kautz, T., 2012. Hard evidence on soft skills. *Labour economics*, 19(4), pp.451-464.

Humphreys, Macartan, Raul Sanchez de la Sierra, Peter van der Windt, 2012. "Social and Economic Impacts of Tuungane: Final Report on the Effects of a Community Driven Reconstruction Program in Eastern Democratic Republic of Congo." Columbia University, June 2012.

Ibrahim, Solava, and Sabina Alkire. 2007. "Empowerment and agency: a proposal for internationally-comparable indicators." *Oxford Development Studies* 35:4: 379-403.

Johnson, S., 2015. Capacities to Aspire and Capacities to Save: A Gendered Analysis of Motivations for Liquidity Management.

Kabeer, Naila. 1999. "Resources, agency, achievements: reflections on the measurement of women's empowerment." *Development and Change* 30(3): 435-464.

Kabeer, Naila. 2001. "Reflections on the measurement of women's empowerment." In *Discussing Women's Empowerment—Theory and Practice*. Sida Studies No. 3. Stockholm: Novum Grafiska AB.

Khwaja, Asim I. 2005. "Measuring empowerment at the community level: an economist's perspective," in: Deepa Narayan (ed.) *Measuring Empowerment: Cross-disciplinary Perspectives*, pp. 267–284 (Washington, DC: The World Bank).

Kishor, Sunita, and Lekha Subaiya. 2008. "Understanding women's empowerment: a comparative analysis of Demographic and Health Surveys (DHS) data." DHS Comparative Reports 20, USAID.

Kishor, Sunita. 2005. "Understanding decision making as empowerment." Paper prepared for presentation at the 2005 Meeting of the International Union for the Scientific Study of Population (IUSSP), Tours, France.

Klein, Elise. 2015. "Women's Agency and the Psychological Domain: Evidence from the Urban Fringe of Bamako, Mali." *Feminist Economics*. 22(1)

Lee, C., Bobko, P., Christopher Earley, P. and Locke, E.A., 1991. An empirical analysis of a goal setting questionnaire. *Journal of Organizational Behavior*, 12(6), pp.467-482.

Levenson, H. 1981. Differentiating among internality, powerful others, and chance. In H. M. Lefcourt (Ed.), *Research with the locus of control construct: Assessment methods*, vol. 1, pp. 15-63. New York: Academic Press.

Locke, E.A., 1968. Toward a theory of task motivation and incentives. *Organizational behavior and human performance*, 3(2), pp.157-189.

Locke, E.A. and Latham, G.P., 2006. New directions in goal-setting theory. *Current directions in psychological science*, 15(5), pp.265-268.

Luszczynska, A., Scholz, U. and Schwarzer, R., 2005. The general self-efficacy scale: multicultural validation studies. *The Journal of psychology*, 139(5), pp.439-457.

- Mackie, G., Moneti, F. and Shakya, H., 2015. "What are Social Norms? How are They Measured?" UNICEF/ University of California, San Diego, Center on Global Justice.
- Malapit, Hazel. 2015. "The 'WEAI' forward: What we've learned and where we're going." WEAI Stakeholder Convening, May 27, 2015.
- Malhotra, Anju. 2003. "Conceptualizing and measuring women's empowerment as a variable in international development." paper presented at a workshop on "Measuring Empowerment: Cross-Disciplinary Perspectives", Washington, DC, February 2003.
- Mani, A., Mullainathan, S., Shafir, E. and Zhao, J., 2013. Poverty Impedes Cognitive Function. *Science*, 969, p.970.
- Manski, Charles. 2004. "Measuring expectations." *Econometrica*, 72(5): 1329-1376.
- Martin, E., 2006. Vignettes and Respondent Debriefing for Questionnaire Design and Evaluation. *Survey Methodology*, p.8.
- Monroe, Pamela A., Janet Bokemeier, J. Morley Kotchen and Harley McKean. 1985. "Spousal Response Consistency in Decisionmaking Research," *Journal of Marriage and the Family*, 47: 733-738.
- Narayan, Deepa (Ed.). 2005. *Measuring Empowerment: Cross-Disciplinary Perspectives*. World Bank.
- Pajares, F., 1996. Self-efficacy beliefs in academic settings. *Review of educational research*, 66(4), pp.543-578.
- Peterman, Amber, Benjamin Schwab, Shalini Roy, Melissa Hidrobo, and Daniel Gilligan. 2015. "Measuring women's decisionmaking: indicator choice and survey design experiments from cash and food transfer evaluations in Ecuador, Uganda, and Yemen." IFPRI Discussion Paper 01453.
- Pitlik, H., Redin, D.M. and Rode, M., 2015. Economic Freedom. *Individual Perceptions*.
- Plunkett, H.R. and Buehner, M.J., 2007. The relation of general and specific locus of control to intertemporal monetary choice. *Personality and Individual Differences*, 42(7), pp.1233-1242.
- Polson, T., 2013. Effects of Goal Setting on Performance in Collegiate Athletes. *Skyline-The Big Sky Undergraduate Journal*, 1(1), p.9.
- Quisumbing, A. 2003. "Household Decisions, Gender and Development: A Synthesis of Recent Research", Washington DC: IFPRI
- Rao, Vijayendra, Paromita Sanyal, and Shruti Majumdar. 2015. "Recasting Culture to Undo Gender: An Sociological Analysis of the Jeevika Intervention in Bihar, India." Working paper, World Bank.
- Reid, D.W. and Ware, E.E., 1973. Multidimensionality of internal-external control: Implications for past and future research. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*, 5(3), p.264.
- Rotter, J.B., 1966. Generalized expectancies for internal versus external control of reinforcement. *Psychological monographs: General and applied*, 80(1).

- Rotter, J.B., 1982. Social learning theory. *Expectations and actions: Expectancy-value models in psychology*, pp.241-260.
- Ryan, R.M. and Connell, J.P., 1989. Perceived locus of causality and internalization: examining reasons for acting in two domains. *Journal of personality and social psychology*, 57(5), p.749.
- Ryan, Richard M., and Deci, Edward L. 2000. "Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being," *American Psychologist*, 55(1), 68-78.
- Ryan, Richard M. and Edward L. Deci. 2006. "Self-regulation and the problem of human autonomy: does psychology need choice, self-determination, and will?" *Journal of Personality* 74:6.
- Sajogyo, Pudjiwati, Endang L. Hastuti, Syarifah Surkati, Winati Wigna and Krisnawati Suryanata. 1979. *Studies in Family Planning*, Vol. 10, No. 11/12, pp. 364-370.
- Samman, Emma, and Maria E Santos. "Agency and empowerment: A review of concepts, indicators and empirical evidence." Oxford Poverty and Human Development Initiative, 2009.
- Scholz, U., Dona, B.G., Sud, S. and Schwarzer, R., 2002. Cross-Cultural Assessment of Coping Resources: The General Perceived Self-Efficacy Scale. *European Journal of Psychological Assessment*, 18(3), pp.242-251.
- Schultz, D. and Schultz, S., 2016. *Theories of personality*. Cengage Learning.
- Sen, Amartya K. 1985. "Well-being, agency and freedom: The Dewey lectures 1984." *Journal of Philosophy* 82.
- Sen, Amartya K. 1999. *Development as Freedom*. New York: Oxford University Press.
- Sen, Amartya K. 2002. *Rationality and Freedom* (Cambridge, Mass, Balknap Press), ix.
- Seymour, Greg, and Peterman, Amber. 2016. "Understanding Differences Between Sole and Joint Decisionmaking: Evidence on Women's Autonomy from Bangladesh and Ghana." IFPRI, working paper in progress.
- Seymour, Greg, Malapit, Hazel, and Quisumbing, Agnes. *forthcoming*. "Measuring time use in development settings."
- Shroff Monal, Paula Griffiths, Linda Adair, Chirayath Suchindran, and Margaret Bentley. 2008. "Maternal autonomy is inversely related to child stunting in Andhra Pradesh, India". *Maternal and Child Nutrition* 5(1): 64-74.
- Skinner, E.A., 1996. A guide to constructs of control. *Journal of personality and social psychology*, 71(3), p.549.
- Smith, Lisa C., Usha Ramakrishnan, Aida Ndiaye, Lawrence Haddad, and Reynaldo Martorell. 2003. "The importance of women's status for child nutrition in developing countries." IFPRI Research Report 131.
- Sproule, Katie and Kovarik, Chiara. 2014. "Cognitive Testing and vignettes." Gender Methods Seminar, IFPRI. December 12, 2014

Stout, Joel T. "Goal setting strategies, locus of control beliefs, and personality characteristics of NCAA division IA swimmers." (1999).

Trommlerová, Sofia K., Stephan Klasen, and Ortrud Leßmann. 2015. "Determinants of empowerment in a capability-based poverty approach: evidence from the Gambia," *World Development*, vol. 66(C), pages 1-15.

UN Statistical Commission. 2013. Report on Gender Statistics by the United Nations Secretary General to the forty-fourth session of the Statistical Commission in February-March 2013, available at <http://unstats.un.org/unsd/statcom/doc13/2013-10-GenderStats-E.pdf>

Valecha, G.K., 1972. *Construct validation of internal-external locus of control as measured by an abbreviated 11-item IE scale*. The Ohio State University.

Van Dalen, H., Van Niekerk, E. & Pottas (1987). The validation of Furnham's Locus of Control scale for a Black Southern African group. *Journal of Industrial Psychology*, 15, pp.12-21.

Vaz, Ana, Pierre Pratley, and Sabina Alkire. 2016. "Measuring Women's Autonomy in Chad Using the Relative Autonomy Index." *Feminist Economics* 22(1).

Vaz, Ana, Sabina Alkire, Agnes Quisumbing and Esha Sraboni. 2013. "Measuring autonomy: evidence from Bangladesh." Oxford Poverty and Human Development Initiative (OPHI) *Research in Progress* 38a.

Verme, P., 2009. Happiness, freedom and control. *Journal of Economic Behavior & Organization*, 71(2), pp.146-161.

World Bank. 2012. *World Development Report: Gender Equality and Development*. Washington, DC.

World Bank. 2014. *Voice and agency: empowering women and girls for shared prosperity*. Washington, DC