Measuring Agency Through Psychological Constructs in Lower-Income Settings

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Abstract

Psychological constructs related to agency—such as the ability to set goals or feel in control—are important components of mental health and influence labor force participation and broader economic well-being. Yet measures of these constructs either don't exist or almost exclusively demonstrate evidence of reliability and validity in Western, Educated, Industrial, Rich, and Democratic (WEIRD) contexts. This paper introduces four newly developed scales to assess goal-setting, locus of control, generalized livelihoods self-efficacy, and agricultural self-efficacy, tested through nationally representative and specialized surveys in Kenya, Malawi, Tanzania, Uganda, Benin, and Côte d'Ivoire. Reliability was evaluated using Cronbach's alpha, while validity was assessed through respondent understanding, expert opinions, correlations with development outcomes and demographics, and factor analysis. All scales demonstrate strong evidence of reliability and validity, though measurement properties are weaker for locus of control. We find no evidence of significant item order effects, while 5-point Likert response scales perform better than 3-point response scales. All four psychological constructs are associated with other mental health as well as socioeconomic outcomes, with generalized self-efficacy having the strongest relationship. Perhaps because of their lower average levels of agency, nearly all constructs matter more for women's outcomes, including life satisfaction, happiness, labor supply, intra-household decision-making and intimate-partner violence. However, all constructs matter more for male food security, while self-efficacy is more strongly related to men's life satisfaction.

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1 Introduction

Non-cognitive skills and psychological well-being are increasingly recognized as key factors that shape economic outcomes and are, in turn, shaped by these outcomes (Heckman 2006; Heckman et al. 2006; Algan et al. 2022). Poverty imposes a cognitive load, which can diminish people's decision-making abilities and have psychological consequences that may preclude individuals from pursuing income-generating activities (Mani et al., 2013; Peng et al., 2013; Haushofer and Fehr, 2014; Wuepper and Lybbert, 2017; Bartoš et al., 2021; Ridley et al., 2020). At the same time, interventions aimed at improving mental health and psychosocial skills have been shown to positively impact both economic decisions and well-being (Baranov et al., 2020; Bossuroy et al., 2022; Ghosal et al., 2022; Bernard et al., 2023).

Three psychological processes that are a critical component of positive mental health are self-efficacy, locus of control and goal setting. These psychological constructs are also theoretically central to an individual's intrinsic agency—the ability to define goals in accordance with one's own values and perceive a sense of control over one's life (Kabeer 1999; Donald et al. 2020). Self-efficacy is a context-specific judgment of one's ability to complete a a specific goal (Bandura 1977) and key to the regulation of one's emotional states. Low self-efficacy has been linked to higher rates of depression and anxiety symptoms, as well as domain-specific anxiety problems (Muris 2002). Similar to self-efficacy, internal locus of control—defined as the extent to which individuals believe that events are caused by their own behavior versus external factors (Rotter 1966, 1982)—is associated with the emotional stability trait within the Big Five personality framework (Kautz et al. 2014) and may foster adaptive behaviors that are beneficial for mental health. Goal setting, which was initially explored in Locke 1968's psychological theory of motivation, is increasingly used within therapeutic mental health treatments for psychological disorders such as anxiety and depression (Gaudiano 2008; Law and Jacob 2013; Jacob et al. 2022).

These psychological agency constructs have become increasingly targeted in policy interventions due to their potential downstream effects on economic development (Sedlmayr et al. 2020; McKelway 2024). However, a key challenge in understanding the link between these constructs—and mental health more broadly—and economic outcomes in low-income settings is measurement limitations. Most psychological constructs and their respective

measures have been developed and tested primarily in Western, Educated, Industrial, Rich, and Democratic (WEIRD) contexts. Without additional evidence of reliability and validity of these measures, it remains difficult to establish how these psychological constructs affect labor participation, income generation, intra-household dynamics, and other socioeconomic outcomes in lower-income settings.

In this paper, we first present psychometric evidence validating four new scales to measure self-efficacy (both generalized efficacy related to livelihoods and domain-specific to agriculture), locus of control, and goal-setting capacity. In the second part of the paper, we document associations between our validated agency scales and other measures of mental health, as well as their association with socioeconomic outcomes related to economic achievement and empowerment in the household. We designed the scales to be conceptually relevant in non-WEIRD populations and rigorously tested them across nine different surveys in six countries in Sub-Saharan Africa, ensuring their applicability and robustness across multiple contexts.

Our findings provide robust support for the psychometric properties of the four scales, both in terms of validity and reliability, for respondents in two large-scale representative surveys (Malawi and Tanzania) as well as more targeted surveys conducted among urban and rural entrepreneurs in Uganda and Kenya, refugees and host community farmers in Uganda, and young female adults in Kenya. The one exception is locus of control, where internal reliability was weak whether implemented in a large-scale representative survey in Malawi, with entrepreneurs in Uganda, with factory workers in Côte d'Ivoire or with adolescent girls in Benin, consistent with prior findings—suggesting that cultural context may influence interpretations of the construct (e.g., Laajaj and Macours, 2019; Ross, 2019).

In terms of associations with other measures of well-being, goal-setting capacity and agricultural self-efficacy are both linked to higher life satisfaction and time-use satisfaction, with effect sizes ranging from 0.03 to 0.18 SDs. These relationships are stronger for women across outcomes. Our measure of generalized livelihoods self-efficacy shows the strongest associations with current and expected life satisfaction across Kenya and Tanzania, with effect sizes ranging from 0.14 to 0.19 SDs—though these associations are, if anything, stronger for men. Internal locus of control is positively associated with life satisfaction in Malawi and Uganda, and has a negative association with depression scores among women in Uganda (0.15 SDs), and a positive one with reported happiness among factory workers

in Côte d'Ivoire (0.11 SDs).

Importantly, we also show that, as expected from theory and prior evidence (Campos et al., 2017; Orkin et al., 2023), individuals with higher individual agency are more likely to participate in the labor force and earn higher incomes. Goal-setting positively relates to labor supply, with a one SD increase associated with a 2-5 percentage point higher labor force participation (LFP) and a 1.9-2.3 increase in weekly working hours—both more important for women. We find no relationship with business ownership, but we do find a significantly positive relationship with weekly earnings as well as a 0.13 SD reduction in food insecurity in Tanzania (both only for men). We find very similar results for agricultural self-efficacy, though here the relationship with labor supply is not just stronger for women, it only holds for women. Livelihoods self-efficacy shows the strongest associations overall, with significant increases in LFP, working hours, earnings, and reductions in food insecurity, as well as higher business ownership and profits. Internal locus of control correlates negatively with food insecurity (with an effect size of 0.18 SD) but has mixed effects on labor outcomes, including lower labor supply among salaried workers in Côte d'Ivoire.

Finally, all constructs are linked to enhanced intra-household decision-making. Across all contexts where we collect the data for both men and women, magnitudes are at least twice as large for women. Livelihoods self-efficacy shows the strongest association (with a one SD increase leading to a 0.12-0.27 SD increase in decision-making), while internal locus of control exhibits weaker, context-specific effects. In the one survey in Kenya where we could measure women's experience of IPV alongside generalized livelihoods self-efficacy, we find that a one SD increase is associated with a 3-percentage point reduction in the likelihood of lifetime IPV exposure. This lower risk of violence holds for both emotional and physical IPV.

Taken together, our findings indicate that our four newly developed scales are suitable tools for measuring an important component of mental health—perceived individual agency—in lower-income contexts, with applicability in both nationally representative surveys, or more targeted surveys spanning farmers, entrepreneurs, refugees and factory workers. Generally, we find that women exhibit lower levels of individual agency across the contexts and subpopulations contained in our data. Moreover, individual agency appears to matter more for women's outcomes in terms of life satisfaction, happiness, labor supply, intra-household decision-making and IPV—with the exception of self-efficacy (whether

generalized or domain-specific to agriculture) mattering more for male life satisfaction, and all individual agency constructs mattering more for male food security. Moreover, agency—and in particular, internal locus of control—emerges as more empirically important for respondents working in entrepreneurship or other activities relying strongly on self-starting behaviors rather than salaried workers.

Given our findings, we recommend these new validated tools for use in a wide range of surveys, including endline surveys evaluating the impact of different types of policy interventions, such as those aimed at improving mental health outcomes, enhancing livelihoods and resilience, or shifting intra-household dynamics. Additionally, they are suitable as baseline measures of key psychosocial skills to study heterogeneous treatment effects in impact evaluations.

Our paper contributes to several strands of the literature. First, we expand the evidence base on measuring mental health-related outcomes in development settings by introducing four new validated scales. Existing research has shown that when used in non-WEIRD contexts, current measures can suffer from large measurement error (Laajaj and Macours 2019; Danon et al. 2024). Although there have been efforts to generate evidence of validity and reliability for measures of psychological constructs in development settings, most have focused on screening and diagnostic tools for common psychological disorders such as anxiety, depression, and post-traumatic stress disorder (Ali et al. 2016) as opposed to constructs such as goal setting, self-efficacy, and locus of control. Where standard measures exist, such as for goal setting (Latham and Locke, 1979; Lee et al., 1991) and locus of control (Rotter, 1966; Levenson, 1981; Sapp and Harrod, 1993), development and testing has primarily taken place in WEIRD contexts, with minimal testing in non-WEIRD contexts (notably Laajaj and Macours (2019)'s test of locus of control in Kenya and Colombia). Development of action-specific self-efficacy tools in lower-income countries has mostly focused on health and entrepreneurship (Asante and Doku, 2010; McKenzie and Puerto, 2015), leaving a gap for agricultural self-efficacy and general livelihoods self-efficacy.

The second main contribution of our paper is to provide new insights on how the link between mental health and socioeconomic outcomes varies across demographic and socioeconomic groups in lower-income countries. We provide novel evidence on this link for both women and men across six countries in West and East Africa, from farmers to

factory workers. Despite the importance of this question, existing research using cross-country data from lower-income settings is relatively thin. One notable exception is Das et al. (2009), who find an association between poor mental health and lower labor force participation (especially for women) using data from 5 countries, but little observed relation between mental health and consumption poverty or education. More recent evidence comes from the literature on socio-emotional skills. For example, Ajayi et al. (2022) analyze data from 17 African on ten socio-emotional skills. They find that intrapersonal skills (positive self-concept, emotional regulation, self-control, perseverance, personal initiative problem-solving and decision-making) are associated with higher income for both men and women, while interpersonal skills (empathy, expressiveness, interpersonal relatedness, and teamwork) only matter for women's earnings.

Finally, our paper contributes to the literature on women's agency. Improving women's agency is increasingly recognized as crucial for advancing gender equality and the empowerment of women (Hanmer and Klugman, 2016; Kabeer, 2016; National Academies of Sciences, Engineering, and Medicine, 2024), goals enshrined as crucial development objectives in the Sustainable Development Goals. Although advancements have been made, effective methods for evaluating many aspects of women's empowerment are still underexplored. For example, tools for measuring women's agency are often validated only in specific contexts, such as high-income groups, and lack consistent survey implementation standards. This limitation makes it challenging to accurately measure agency across the diverse countries and contexts where such data is critically needed (Donald et al., 2020; Ibrahim and Alkire, 2007). Moreover, widely used measures——particularly those designed for integration into large-scale national surveys——fail to fully reflect the complex and multi-dimensional nature of women's agency (Bhan et al., 2022; Laszlo et al., 2020). Our work thus expands the existing toolkit on conceptually precise measures of agency that can be embedded and tracked in nationally-representative surveys, while generating evidence on how many of these constructs are particularly relevant for women's socioeconomic outcomes.

Our paper proceeds as follows. We first review the motivation for and theoretical structure of the measures (Section 2),present our methodology (Section 3) and results on the scales' reliability and validity (Section 4). Section 5 shows the relationship between each of our scales and other measures of mental health, economic achievement and intra-household

outcomes. Section 6 discusses the results and concludes.

2 Psychological Agency Constructs

Agency is the capacity to set one's own goals and act towards achieving them (Kabeer, 1999). It includes the ability to initiate changes in one's environment or outcomes, through direct decision-making or indirectly by breaking from routine behaviors, with its expression varying by context (Sen 1985; Donald et al. 2020). Having agency is foundational to mental health. Experiencing a sense of control and autonomy are key contributors to psychological well-being, and are thought of as a basic psychological need in influential theories of health (Deci and Ryan, 2008). People with a strong sense of agency are more likely to employ active coping strategies to maintain their mental health, and are less likely to resort to learned helplessness (Aldwin et al., 2011; Maier and Seligman, 2016). Indeed, many evidence-based therapies, such as Cognitive Behavioral Therapy (CBT), as well as recovery models in mental health care, focus on enhancing agency by helping individuals reframe thoughts, make proactive decisions, and take responsibility for their actions (Beck, 2020; Slade, 2009).

Within this framework, an individual's ability to set goals is a vital component of agency. Therefore, we first focus on measuring goal-setting capacity (Locke 1968). Next, we turn to a second key component of agency, which is the degree to which individuals believe their own actions can contribute to achieving their goals. To do so, we employ new measures for the well-defined psychological constructs of self-efficacy and locus of control. In the remainder of this section, we review the existing measurement methods for each of these psychological constructs, identify the relevant research gaps, and introduce four newly designed scales to address the identified gaps.

2.1 Goal-Setting Capacity

The concept of goal-setting capacity was initially explored in Locke (1968)'s psychological theory of motivation, which proposes that clear, specific, and challenging goals are essential for motivating individuals and enhancing performance. The first tool to measure goal-setting capacity was a 53-item scale developed by Latham and Locke (1979), designed to assess employees' goal-setting strategies and identify key goal attributes that may be hindering their performance. The validation of this scale and of subsequent adaptations took place in the field of industrial and organizational psychology in WEIRD contexts, us-

ing standardized questionnaires and scales to enhance performance-specific tasks (Earley et al. 1987; Lee et al. 1991; Stout 1999; Locke and Latham 2006). In clinical psychology, goal-setting activities and measuring goal-based outcomes are also increasingly used within therapeutic mental health treatments for psychological disorders, including anxiety and depression (Gaudiano 2008; Law and Jacob 2013; Jacob et al. 2022).

Although, to the best of our knowledge, the standardized goal-setting questionnaires and scales stemming from industrial psychology have not been used in research in Sub-Saharan Africa, recent attention to the importance of goal-setting capacity in development settings has increased due its importance in explaining socioeconomic outcomes. For example in Tanzania, Shah et al. (2023) find that a goal setting activity aimed to improve women's sexual and reproductive health outcomes reduced intimate partner violence (IPV) by helping women exit violent relationships, while Abel et al. (2019) find that setting goals related to job search increased employment by 26% among youth in South Africa.

Goal-Setting Capacity Scale (GSC) To fill the measurement research gap, we designed and tested a new goal-setting capacity scale (hereafter, GSC). This tool, presented in column (1) of Table 1, is an 8-item measure designed to capture three sub-constructs: goal creation and action (GA), goal clarity (GC), and goal importance to self (GI), which emerged as important in past work on goal-setting in high-income settings (Latham and Locke, 1979; Lee et al., 1991).

In contrast to existing scales, the GSC does not include sub-constructs such as supervisor support in creating goals and use of goal setting in performance appraisal, due to their lack of applicability outside of formal employment settings. Rather, the three sub-constructs (GA, GC, GI) aim to capture goal-setting capacity in its simplest, most general form to ensure relevance for a broad range of socioeconomic activities.

2.2 Self-Efficacy

The construct of self-efficacy, the belief in one's capabilities to act effectively toward a goal (Bandura 1977), is recognized across disciplines as a crucial component of mental health and as an important factor influencing economic decisions and promoting physical health (Zimmerman 2000; Benight and Bandura 2004). Within the taxonomy of the Big Five personality traits, self-efficacy is associated with the neuroticism (or emotional stability) factor, with strong associations with anxiety, depression, and vulnerability to

Table 1: The New GSC, AGSE, GLSE and S-LOC Scales

Goal-Setting Capacity (GSC)	Agricultural Self-Efficacy (AGSE)	Generalized Livelihoods Self-Efficacy (GLSE)	Locus of Control (S-LOC)
1. I set short-term goals for myself (GA)	1. Identify the best crops to plant on a field (S)	1. I am able to work outside the home if I want to (CD)	1. To a large extent, my life is controlled by accidental events (CH)
2. I set long-term goals for myself (GA)	2. Locate the market or selling spot where you will be able to get the highest price for each crop (S)	2. I am free to pursue the types of work that interest me (CD)	2. My life is determined by my own actions (IN)
3. I set specific, clear goals for myself (GC)	3. Determine what type of inputs (such as improved seeds or fertilizer) you will use on your crops (P)	3. I am able to adjust my daily work schedule whenever I need to (CD)	3. I feel like what happens in my life is mostly determined by the other members of my household (PO)
4. I make plans to help me achieve my goals (GA)	4. Decide when you should harvest each crop to obtain the best quality (P)	4. I am able to decide how household resources are used to pursue economic activities (CD)	4. I can pretty much figure out what's going to happen in my life (IN)
5. I feel proud when I achieve my goals (GI)	5. Interact with other farmers to gather information and develop professional contacts (M)	5. I am able to make decisions to improve my own economic well-being (CD)	5. I often have no chance to protect myself and my livelihood from bad luck (CH)
6. I am able to prioritize multiple goals (GC)	6. Obtain transport to bring your crops to the market (M)	6. I have the skills I need to engage in income-generating activities (RS)	6. My life is mainly controlled by my family outside the home (PO)
7. Setting goals for myself is good for my success (GI)	7. Manage household members to help out on your plots (IP)	7. I have the social support I need to engage in income-generating activities (RS)	7. I am generally able to protect what is important to me (IN)
8. Setting goals for myself is good for my household's success (GI)	8. Supervise other workers to work on your plots (IP)	8. I have the financial support I need to engage in income-generating activities (RS)	8. When I get what I want, it's usually because I'm lucky (CH)
	9. Save enough to be able to buy fertilizer and labor at the right time (IF)	9. I am able to find the information I need to make good decisions for my income-generating activities (RS)	9. I have very little chance of protecting my personal interests when they come into conflict with those of other community members (PO)
	10. Obtain a formal or informal loan to buy the farming materials you need (IF)	10. I have the confidence I need to succeed in my income-generating activities (RS)	

Notes: The agricultural self-efficacy scale asks respondents "How much confidence do you have in your ability to ...?". All other scales ask respondents for their degree of agreement with the scale items.

stress (Kautz et al. 2014).

Self-efficacy has been shown to positively correlate with educational and employment aspirations and outcomes also in non-WEIRD contexts (Roy et al. 2018; Ansong et al. 2019; McKelway 2022). Furthermore, experimental evidence has shown that psychosocial interventions improving self-efficacy have led to positive impacts on female labor supply

in India (McKelway 2024), preventive health behaviors in Kenya (John and Orkin 2022), and human capital investments in Ghana (Frohnweiler 2024).

In the literature, there are two main conceptualizations of self-efficacy, which result in two main measurement approaches. In the first one, originally envisaged by Albert Bandura, self-efficacy is a context-specific judgment of one's ability (Bandura 1977). Therefore, measuring self-efficacy involves asking the respondent about their confidence in completing specific actions. The second main conceptualization of self-efficacy in the literature is as a generalized personality trait.

Agricultural Self-Efficacy Scale (AGSE) In lower-income countries, scales for measuring the first conceptualization of self-efficacy have mostly focused on domain-specific tools within health and entrepreneurship (Asante and Doku 2010; McKenzie and Puerto 2015). However, there is no existing scale for agricultural activities, despite agriculture employing most of the labor force in these economies (World Bank Development Indicators, 2022).

To fill this gap, we designed and tested a 10-item agricultural self-efficacy scale (AGSE) focused on constraints relevant to farmers in low-income settings, see column (2) of Table 1. Following McGee et al. (2009)'s systematic review of the dimensions of entrepreneurial self-efficacy, the scale was designed to capture the four phases of an economic activity: searching (S), planning (P), marshaling (M), and implementing, which was divided into two categories, implementing related to labor (IL) and other implementing (IF).

Generalized Livelihoods Self-Efficacy Scale (GLSE) Instruments designed to measure self-efficacy as a generalized personality trait assess an individual's overall confidence in their ability to succeed in various tasks and situations, without specifying what these tasks or situations are. They capture an individual's general personal resource beliefs (Schwarzer and Jerusalem 1995; Chen et al. 1999). However, despite the central importance of self-efficacy for poverty mitigation and economic achievement—particularly relevant outcomes in low-income settings—there is currently no generalized self-efficacy scale related to individuals' safeguarding and expansion of their livelihoods.

To fill this gap, we designed and tested a 10-item Generalized Livelihoods Self-Efficacy Scale (GLSE) aimed at measuring efficacy applicable to general economic activities, shown in column (3) of Table 1. It was designed to capture two main domains: respondents'

confidence regarding their resources and skills (RS) as well as their overall control and decision-making over economic decisions (CD). For applicability to general economic activities, the sub-constructs emphasize an individual's assessment of their ability to engage in and control various components of economic activities, such as whether they work outside the home and can control how resources are used in pursuit of income-generating activities, in addition to whether they have the needed skills or support that are precursors to engaging in economic activities.

2.3 Locus of Control

The construct of locus of control, defined as the extent to which individuals believe that events are caused by their own behavior versus external factors, originates from Rotter's social learning theory in clinical psychology (Rotter, 1966, 1982). Rotter defined internal locus of control as believing one's behavior and personality traits determine life outcomes, while external locus is the belief that outcomes are controlled by external factors such as luck, fate, or powerful others. The theory proposes that a higher internal locus fosters adaptive behaviors, which are essential for navigating stressors and preserving mental health, whereas a stronger external locus may contribute to maladaptive behaviors detrimental to well-being. Similarly to self-efficacy, it is a life skill associated with the emotional stability trait within the Big Five personality framework (Kautz et al. 2014).

In terms of measurement, Rotter's original 23-item scale, later revised to an 11-item version by Valecha (1972), is widely used due to its high internal validity. For example, in economics, Heckman (2006) and Heckman and Kautz (2012) used the scale to assess its predictive ability for a range of long-term success outcomes in children who participated in early childhood programs or formal schooling, and Caliendo et al. (2022) demonstrate that higher internal locus of control leads to increased take-up of general work-related training.

Reid and Ware (1973) critiqued Rotter's original conceptualization by arguing that locus of control is multidimensional. In response, Levenson (1981) developed the Internality, Powerful Others, and Chance (IPC) scale to differentiate among external locus dimensions. Both the Rotter and IPC scales have been validated in Sub-Saharan Africa among well-educated professionals (Abbas, 2016) and Dercon et al. (2014) applied the IPC scale to low-literacy populations in Ethiopia, showing adequate internal consistency. However,

these adaptations all relied on the long-form 24-item IPC scale or an ad hoc item selection. While Sapp and Harrod (1993) developed a 9-item short-form scale, it was only validated with U.S. university students.

Short-form Locus of Control Scale (S-LOC) Our new 9-item short-form locus of control scale (S-LOC), presented in column (4) of Table 1, was designed to capture three main subconstructs: internal locus of control (IN), reflecting the belief that outcomes are determined by one's own actions and efforts; chance external locus (CH), capturing the belief that events are driven by luck or randomness; and powerful others locus (PO), representing the belief that other people significantly influence the respondent's life outcomes.

The new scale makes two key contributions. First, it builds on the Sapp and Harrod (1993) scale by disentangling the concept of "powerful others"—recognizing that external locus of control may vary depending on whether household members or community members are perceived as the "powerful others" influencing the respondent's actions. Second, it validates this modified multidimensional short-form locus of control scale in low-income, low-literacy settings.

3 Research Design and Data

3.1 Scale Development and Validation

We designed and assessed the validity and reliability of the four new scales as part of the Measures for Advancing Gender Equality (MAGNET) research initiative, which aims to broaden and deepen the measurement of agency.[1] All four scales were designed to be well-suited for surveys conducted by national statistical offices, other nationally representative individual- or household-level surveys, and targeted thematic or impact evaluation studies in low- and middle-income countries.

To yield a broad range of insights and validate the scales for multiple population groups, we tested each of the newly developed measurement tools in at least three contexts (either regions of a country or across countries) for a total of nine different surveys in six different countries. All scales were pre-piloted to address any local adaptation, translation issues or

[1]The MAGNET initiative is a collaboration between the World Bank's Africa Gender Innovation Lab (GIL) and Living Standards Measurement Study (LSMS teams), the International Food Policy Research Institute (IFPRI), the International Rescue Committee (IRC), and researchers at the University of Oxford, Tufts University, University of Alicante, Brookings, Makerere University, and the Indian Institute Of Management–Bangalore. https://magnet.ifpri.info.

general lack of understanding before each data collection. As detailed below, we also conducted in-depth cognitive interviews with respondents (Willis et al., 1999). In Appendix A, we provide a summary of each of the data collection rounds for each of the scales.

The scale response options are all Likert scales and, as part of the validation process, we randomized whether the respondent was administered a three-point or a five-point response scale.[2] In most cases, the order of the scale items was also randomized.

3.2 Outcomes of Interest

Mental Health

Psychological agency constructs For each construct, we compute "naive" scores by taking the mean across scale items. In the bottom part of Table 2, we present the mean and standard deviation for each scale by survey for both the three-point and five-point Likert response scales. In Appendix Figures A1-A4, we plot the distribution of each scale using survey data. In our regression analysis, we will show that the results are robust to other standard index aggregation methods, such as principal component analysis. Starting from Figure 1, we present all scales in standardized form (i.e., in standard deviation units) for ease of interpretation.

Other mental well-being measures: Across surveys, we capture additional dimensions of individuals' psychological well-being using validated measurement tools. The most frequent is the Cantril ladder life satisfaction question (OECD, 2013; Helliwell et al., 2024), implemented in two versions: current self-placement on the ladder and expected placement in five years. This scale has been shown to correlate with other emotional well-being measures as well as suicide rates (Bray and Gunnell, 2006; Levin and Currie, 2014). The Kampala survey includes the PHQ-4 scale for depression and anxiety (Christodoulaki et al., 2022), while the Côte d'Ivoire survey uses the O-HL happiness scale from the World Values Survey (Inglehart et al., 2022). The Malawi LSMS and Kampala surveys also assess respondents' time use satisfaction. See Appendix A.2 for the specific data variables.

[2] In the goal-setting, locus of control and generalized livelihoods efficacy scales, the response scales following "Please indicate the degree to which you agree with each of the following statements" were either "1. Disagree; 2. Neither agree nor disagree; 3. Agree" or "1. Completely disagree; 2. Mostly disagree; 3. Neither agree nor disagree; 4. Mostly agree; 5. Completely agree". For the agricultural self-efficacy scale, the response scale following "How much confidence do you have in your ability to...?", was either "1. No confidence at all; 2. Some confidence; 3. Complete confidence" or "1. No confidence at all; 2. Slight confidence; 3. Some confidence; 4. A great deal of confidence; 5. Complete confidence".

Socioeconomic Outcomes

Economic achievement: We also construct comparable economic outcomes across surveys, namely: an indicator equal to one if the respondent worked for pay in the past week, the number of hours worked per week (set to zero if the respondent is not working), and a measure of weekly earnings (set to zero if the respondent earns no income), converted into international PPP-adjusted dollars.[3] Whenever available, we also create an indicator variable equal to one if the respondent owns or runs a business, as well as a measure of business profits (PPP-adjusted). Weekly earnings and business profits are winsorized at the 5% level on both tails. In two of the surveys, we also have available the validated 8-item Food Insecurity Experience Scale (FIES), an experience-based metric of food insecurity severity (Cafiero et al. 2018), which we aggregate with principal component analysis and standardize afterwards.

Empowerment: To capture empowerment, we build indices of an individual's participation in intra-household decision-making, a common metric of intra-household bargaining power (Banerjee et al. 2015; Ambler 2016; Lavy et al. 2022). In each survey that includes a decision-making module, we create a variable equal to one for each decision domain where the respondent answers that they participate in the household decision. We then aggregate the number of decisions in which they participate. Given that the number and description of household decisions don't always coincide across surveys, we create a decision-making index by standardizing the measure within each survey so that the interpretation is in standard deviation units. In one of the surveys, we also have data on women's experiences of intimate partner violence (IPV), and we create a dummy variable equal to one if the woman reports having ever experienced it, as well as separate dummies for emotional and physical IPV.

3.3 Summary Statistics

Table 2 provides summary statistics of sample respondents for each data collection round. Appendix Tables A2 and A3 show summary statistics for female and male respondents separately.

We observe substantial variation in respondent characteristics across surveys and con-

[3]Source: International Comparison Program, World Bank — World Development Indicators database, World Bank — Eurostat-OECD PPP Programme.

Table 2: Summary Statistics

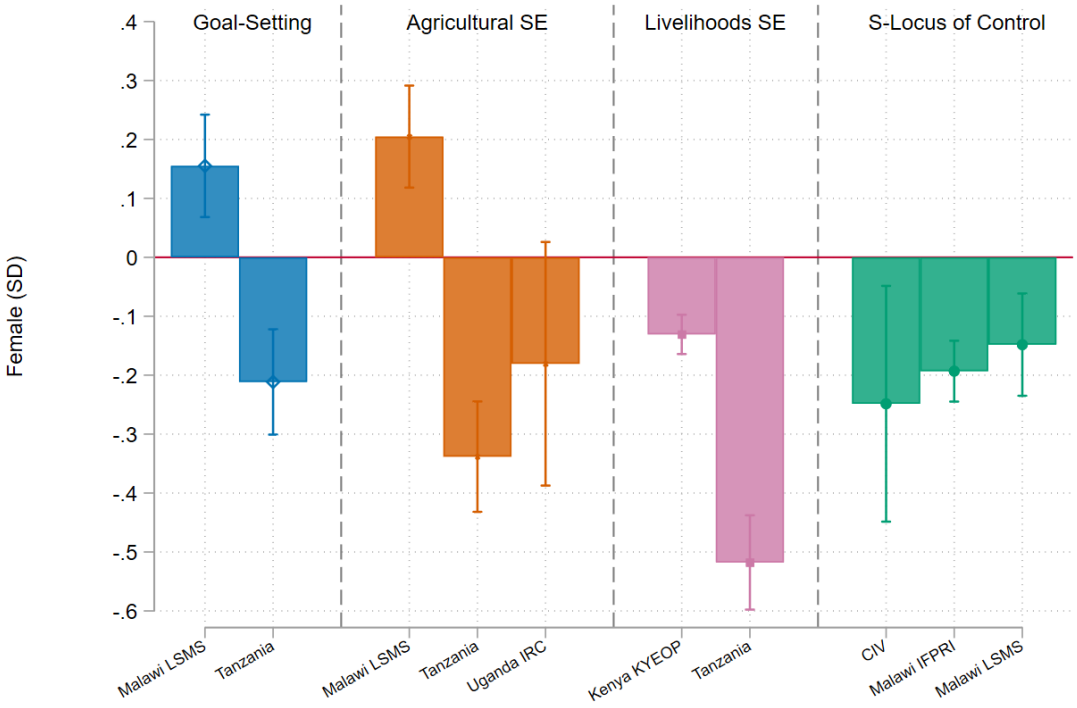
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Kenya		Malawi			Uganda			Benin	
	IDRC	KYEOP	LSMS	IFPRI	Tanzania	IRC	Kampala	Cote d'Ivoire	Mothers	Girls
Sociodemographics										
Female	1.00	0.60	0.50	0.62	0.72	0.56	1.00	0.84	1.00	1.00
	[0.00]	[0.49]	[0.50]	[0.49]	[0.45]	[0.50]	[0.00]	[0.37]	[0.00]	[0.00]
Age	23.83	24.73	32.12	29.78	42.47	37.63	34.16	32.82	43.50	15.63
	[4.39]	[2.94]	[12.01]	[10.82]	[15.79]	[11.25]	[9.82]	[7.00]	[11.57]	[3.39]
Is married	0.28	0.53	0.75	0.89	0.70	0.84	0.53	0.42	0.79	0.09
	[0.45]	[0.50]	[0.43]	[0.31]	[0.46]	[0.37]	[0.50]	[0.49]	[0.41]	[0.29]
Household size	4.31	3.87	4.99	4.30	3.19	9.38	4.84	5.35		
	[2.02]	[2.31]	[1.84]	[1.90]	[1.86]	[4.50]	[1.91]	[3.66]		
Ever in school	1.00	1.00	0.42		0.80	0.65	0.18	0.77	0.25	0.75
	[0.06]	[0.05]	[0.49]		[0.40]	[0.48]	[0.38]	[0.42]	[0.43]	[0.43]
Secondary	0.72	0.37	0.25		0.18	0.13	0.05	0.67	0.12	0.52
	[0.45]	[0.48]	[0.43]		[0.38]	[0.34]	[0.21]	[0.47]	[0.32]	[0.50]
Works for pay	0.30	0.85	0.57		0.35		0.92	0.22		
	[0.46]	[0.36]	[0.50]		[0.48]		[0.26]	[0.41]		
Weekly hours for pay	12.03	35.45	27.13		25.89			8.38		
	[21.19]	[25.19]	[25.49]		[25.11]			[18.63]		
Weekly earnings (w. 5%)	9.30	69.57	13.73		72.96		65.52	22.34		
	[17.77]	[67.24]	[26.83]		[80.33]		[53.46]	[44.82]		
Is business owner	0.08	0.51	0.24				0.86			
	[0.27]	[0.50]	[0.43]				[0.35]			
Is refugee						0.50				
						[0.50]				
Psych. Construct Scales										
Goal-Setting: GSC 3p	2.89		2.81		2.74					
	[0.22]		[0.21]		[0.41]					
GSC 5p	4.63		4.41		4.27					
	[0.50]		[0.52]		[0.80]					
Agricultural SE: AGSE 3p			2.45		2.46	2.26				
			[0.44]		[0.54]	[0.39]				
AGSE 5p			3.81		3.78					
			[0.86]		[0.97]					
Livelihoods SE: GSLE 3p	2.57	2.71			2.25					
	[0.29]	[0.27]			[0.59]					
GSLE 5p	4.03	4.23			3.19					
	[0.56]	[0.48]			[1.20]					
Locus of Control: S-LOC 3p			2.08	2.04			2.16	2.23		
			[0.30]	[0.32]			[0.28]	[0.34]		
S-LOC 5p			3.18	3.05			3.26	3.33	2.85	2.88
			[0.57]	[0.60]			[0.48]	[0.51]	[0.36]	[0.44]
Sample size	1,664	9,418	1,431	4,339	1,416	263	956	757	5,675	12,230

Notes: This table presents summary statistics of all respondents included in the analytical sample. Each column presents sample mean and standard deviation (in brackets) in each of the surveys.

texts, as expected given the differing sampling strategies employed across surveys (Appendix A). For instance, the average age of respondents varies widely, from 28 years in Kenya's IDRC survey to 43 years in Benin's mother survey (and 15 years in Benin's adolescent sample). Educational attainment also differs significantly across contexts: while all respondents in the IDRC survey have attended school, this proportion is only 18% in Uganda's Kampala survey. Similarly, the proportion of respondents with completed secondary education varies considerably. As a result, we control for these sociodemographic differences in our main outcome analysis in Section 5.

Economic activity indicators also show marked differences. The proportion of respondents working for pay is highest in the Kampala survey (92%), compared to only 22% in our Côte d'Ivoire data. Weekly earnings (in international PPP-adjusted dollars) vary widely, from an average of 22.34 in Côte d'Ivoire to 72.96 in the Tanzania survey. Likewise, the proportion of respondents who report being entrepreneurs ranges from 8% up to 86% in the Kampala survey (focused on female market vendors).

Figure 1: Psyschological Construct Scales: Gender Gap



Notes: This figure displays the estimated gender gap in standard deviations, along with the 90% confidence interval (CI), for each of the survey implementations of each of the psychological construct scales.

Consistent with prior research measuring psychological traits (Lynn and Martin 1997; Costa Jr et al. 2001; Schmitt et al. 2008; Ajayi et al. 2022), we observe significant gender differences in each of the scales across contexts. In Figure 1, we present the mean gender gap in each of the constructs, controlling for age, marital status, and education, for each of the surveys that include both female and male respondents.[4] The gender difference is statistically significant across all surveys, with measures consistently lower for women, except in the Malawi LSMS survey, where women, on average, report higher goal-setting capacity and agricultural self-efficacy compared to men.

4 Measurement Properties

Following the psychometrics literature (Furr, 2021), as well as recent applications in economics (Laajaj and Macours 2019; Danon et al. 2024), we present results on the validity and reliability of our four new scales. Key methodology and summary results are presented in the main text of the paper; detailed analysis is presented in Appendix B.

4.1 Assessing Measurement Quality

4.1.1 Content and Face Validity

Content validity refers to the extent to which a measurement reflects the intended construct, while face validity refers to the extent to which the scales are subjectively viewed as covering the concept they purport to measure (DeVellis 2017; Jose et al. 2017). There are no specific statistical methods for evaluating them, but they are supported by theoretical frameworks and can be assessed by experts in the subject matter. Each of the four agency scales was developed after a thorough review of the empirical and theoretical literature, with input provided through a series of consultations with subject matter and technical experts organized by the MAGNET initiative. Face validity was additionally assessed through survey firm review prior to cognitive testing and pre-piloting. In some of the surveys, we also conducted more in-depth cognitive interviewing led by expert qualitative researchers that led to the refinement of the scale content.

Respondent understanding of the scales is consistently high, with at least 70% of respondents finding the questions fully clear and simple to answer, except for tools implemented

[4] The gender gap is estimated using the following regression, conducted separately for each survey: Psych. Construct$_i = \alpha + \gamma \text{Female}_i + \theta X_i + \epsilon_i$,, where Psych. Construct$_i$ represents the standardized naive score of each of the four scales for respondent i; Female$_i$ is a dummy variable indicating female gender; and X_i includes controls for age, marital status, and education.

in the Tanzania LSMS survey, where this share is slightly lower but still above 65%. Across implementation rounds, the percentage answering "Very unclear and difficult to answer" is very small, never exceeding 10 percentage points (Tables B1, B2, B3).[5]

4.1.2 Construct and Structural Validity

Construct validity assesses how well the measure captures the construct of interest through statistical associations with other measures it is supposed to be correlated with. We assess construct validity by calculating pairwise correlations of each of our measures with respondent characteristics which we expect correlation with, based on theory or prior empirical evidence. The results are summarized in Appendix B.2.

Construct validity can be further assessed through factor analysis, which we will refer to as structural validity. We assess structural validity by first conducting confirmatory factor analysis—a form of structural equation modeling (SEM)—to test whether the theorized factor structures from the design phase were accurate. We use four statistics to assess goodness of fit for each of the models, with the following established cut-offs: a non-significant chi-square test, a Tucker-Lewis Index (TLI) and Comparative Fit Index (CFI) above 0.90, and a Root Mean Squared Error of Approximation (RMSEA) below 0.05 for good fit and below 0.08 for acceptable fit (Hu and Bentler 1999). Appendix B.3 contains tables of the standardized factor loadings for each scale.[6]

Additionally, we utilize exploratory factor analysis (EFA) as a data-driven approach to identify the smallest number of hypothetical latent variables that could explain the covariation of a set of observed variables (Watkins 2018). All EFA models were estimated using principal-factor methods and used promax rotations to allow for correlations between factors. Loadings less than 0.30 were suppressed. Kaiser-Meyer-Olkin tests were run prior to commencing EFA to ensure that the data were suitable for factor analysis. All KMO tests returned values above the acceptable 0.50 cut-off (Dziuban and Shirkey 1974), with a majority above 0.80. EFA are shown in cases where the CFA results show room for improvement, with the EFA providing an alternative grouping of items for a given scale.

[5] After each scale's implementation, respondents were asked: "How clear did you find the phrasing of the preceding question?" (1=Very unclear and difficult to answer, 2=Slightly unclear and slightly difficult to answer, 3=Clear and simple to answer).

[6] While we initially intended to conduct multi-group analysis to compare differences in CFA model fit for the scales for which we had data collected with both men and women, the starkly unequal sample sizes by gender (with most data sets having majority women respondents) resulted in models not converging. Therefore, the main heterogeneity results by gender are presented through regression models.

4.1.3 Internal Reliability

Finally, to assess the internal reliability of each scale, i.e., the degree to which their items are jointly measuring the same construct (Henson 2001; Jose et al. 2017), we calculate the Cronbach's alpha (Cronbach 1951). The coefficient α measures the degree of correlation among the items of a scale. The underlying assumption is that if items are highly correlated, we may theoretically conclude that the construct of interest is being measured with some degree of consistency.[7] Scales with Cronbach's alpha above 0.6 were considered to have acceptable internal consistency.[8] Results are shown in Appendix B.4.

4.2 Results Summary and Implications

In Table 3, we summarize the evidence of reliability and validity for each scale across the various tests. In terms of construct validity, all four scales display positive and statistically significant pairwise correlations with educational attainment, income-generating capacity, and well-being outcomes. Although both 3- and 5-point versions of the scales demonstrated evidence of reliability and validity, the 5-point scales tended to have stronger psychometric properties, while not resulting in lower respondent understanding (Tables B1-B3). With the exception of locus of control, none of the 5-point scales had Cronbach's alphas below the reliability cutoff. For future implementation, we recommend using 5-point Likert response scales.

Table 3: Summary of Psychometric Properties

Scale	Content/Face Validity	Construct Validity	Structural Validity	Internal Reliability
GSC	Very Strong	Very Strong	Strong	Strong
GLSE	Very Strong	Very Strong	Fair	Strong
AGSE	Very Strong	Very Strong	Strong	Very Strong
LOC	Very Strong	Very Strong	Strong	Weak

Notes: "Very Strong" is defined as the scale meeting half or more of criteria in all contexts where the scale was tested; "Strong" is defined as the scale meeting half or more of criteria in at least two contexts;"Fair" is defined as the scale meeting at least half or more of criteria in at least one context; "Weak" is defined as the scale not meeting half or more criteria in any contexts.

Goal setting capacity (GSC) The results provide strong support for the validity and reliability of the new goal-setting capacity scale (GSC) across multiple contexts in

[7] Let a measurement tool X consist of K different items, where σ_i^2 is the variance of item i and σ_X^2 is the variance of X, the Cronbach's alpha formula is as follows: $\alpha = \frac{K}{K-1}(1 - \frac{\sum_{i=1}^{K} \sigma_i^2}{\sigma_X^2})$.

[8] If we chose a stricter threshold, such as 0.8, all scales, except for S-LOC, would score above it in at least one of the survey implementations (3-point or 5-point, for women or men).

Sub-Saharan Africa. With the exception of the Malawi survey, all alphas fall within an acceptable range for internal consistency. Although the hypothesized three-factor model meets several criteria for goodness of fit, additional exploratory analysis suggests that a two-factor model that collapses goal creation/action and goal clarity may be more appropriate and better represent the latent construct of goal-setting capacity. No items stand out as needing to be removed or replaced based on confirmatory factor analysis.

Agricultural Self-Efficacy (AGSE) The scale demonstrates strong evidence of reliability and mixed evidence of structural validity. Cronbach's alphas fall within the acceptable range across all surveys. Although CFA and EFA do not indicate any single item as problematic, such that it should be removed or revised, both suggest that the grouping of items into theoretical sub-factors may need to be reconsidered. Although the current five-factor structure may be a plausible model based on meeting several goodness of fit criteria across multiple pilots, a more appropriate model may be to split the items thematically by activity (e.g., planting/harvesting, labor, and market engagement) rather than by underlying behavior (searching, planning, marshaling and implementing).

Generalized Livelihoods Self-Efficacy (GLSE) The generalized livelihoods self-efficacy scale demonstrates strong evidence of validity and strong evidence of reliability. Cronbach's alphas are within acceptable range for Tanzania and for the 5-point versions tested in Kenya, but are just under the 0.60 cutoff for the 3-point versions. This again shows that the 5-point version has better psychometric properties. Both CFA and EFA suggest that at least two distinct, but related sub-factors exist as originally theorized: (1) control and decisionmaking and (2) resources and skills. Since EFA suggested item 10 ("I have the confidence I need to suceed in my income-generating activities") should load on its own factor, we tested CFA models without item 10[9] for Tanzania and Kenya KYEOP and find that the goodness of fit statistics improve. Future use of this scale should consider dropping item 10 or constructing an additional factor that more fully captures self-confidence.

Locus of Control (S-LOC) The locus of control scale displays relatively poor evidence of reliability and strong evidence of validity. Cronbach's alphas varied widely and show

[9]Note that item 10 was not included in the scale for the Kenya IDRC survey, so all results for Kenya IDRC are without item 10.

some improvement when the internal LOC items are either not included or aren't reverse coded. Although both one- and two-factor models (i.e., considering external locus of control as one construct or splitting it into 'powerful others' and 'chance') for external LOC demonstrated plausible fit across contexts, variations in which model fit better suggests that cultural differences in LOC may exist. However, this only impacts how the scale should be analyzed rather than suggesting that any items be altered or removed. Cultural differences in conceptualizing external LOC should be monitored in future implementation of this scale. This should also extend to the preference placed by researchers on whether external versus internal locus of control should be viewed more favorably in a given context. In some contexts or with certain populations, higher external validity—particularly believing that a powerful other is in control—could be beneficial for people's mental health as opposed to internalizing the causality of events.

4.2.1 Robustness Checks

As part of the validation strategy, we implemented item-order randomization whenever feasible. To test for the presence of order bias, we assess the predictive power of the first item asked on the overall scale value. We examine the R^2 from a regression where the scale index is regressed on a set of indicator variables representing which scale item was presented first. A high R^2 would indicate significant order bias, with the first item explaining a substantial portion of the variation in responses. Conversely, a low R^2 would suggest minimal or negligible order bias. Across scale implementations, we find that the R^2 values are consistently very small, never exceeding 0.05 (Table B23).

We also show that the measurement properties of the locus of control scale, which includes reverse-coded items, are not affected by correcting for acquiescence bias (Tables B24-B25).[10] In Section 5, we also show how associations with other measures of mental health and socioeconomic outcomes remain robust to dropping individuals who always agree with the statements posed by the scale.

[10]We compute the acquiescence score and apply the corresponding bias correction using the following procedure: 1. Reverse the items that are reverse-coded; 2. Compute the average response for the reverse-coded items and the average response for the non-reverse-coded items; 3. Calculate the difference between the average of the non-reverse-coded items and the average of the reverse-coded items, then divide this difference by two; 4. Add the acquiescence score derived in step 3 to each reverse-coded item and subtract the acquiescence score from each non-reverse-coded item.

5 Individual Agency, Mental Health, and Socioeconomic Outcomes

The measurement properties presented in the prior section show that our scales constitute strong measures of the underlying agency-related psychological constructs we aimed to validate in non-WEIRD contexts. Hence, we can now turn to examine how each scale relates to other relevant measures of mental health, as well as to measures of economic achievement and empowerment.

As discussed above, goal-setting capacity, self-efficacy, and locus of control are three critical components of positive mental health. We first examine their relationship to other important mental well-being outcomes: respondents' satisfaction with how they spend their time, with their life overall and with what they expect their future life to look like, as well as their overall depression and happiness levels.

Having high-quality measures of these three critical psychological agency constructs, validated in lower-income settings, also allows us to contribute to the evidence base on the relationship between mental health and socioeconomic development outcomes. We focus on labor supply, earnings, entrepreneurial activity, and food insecurity as economic outcomes of particular interest, and intra-household decisionmaking and IPV as broader social welfare outcomes, particularly for women.

5.1 Empirical Strategy

To study the relationship between our psychological agency measures and individual outcomes, we estimate the following equation for each of the constructs:

$$y_{is} = \alpha + \beta_s \text{Psych. construct}_{is} \times SurveySetting_s + \theta X_{is} + SurveySetting_s + \epsilon_{is}, \quad (1)$$

where y_{is} represents the outcome for individual i in survey setting s. Psych. construct$_{is}$ is the standardized index of GSC, GLSE, AGSE or S-LOC. X_{is} is a vector of sociodemographic controls including sex, age, marital status, and education.

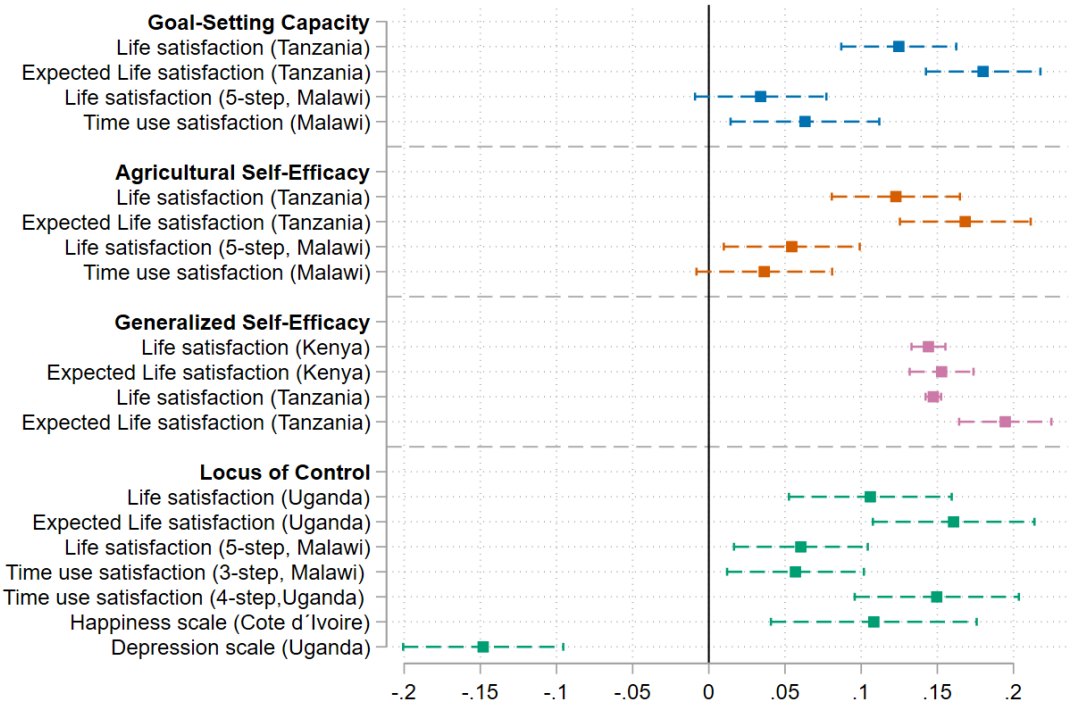
In regressions where the outcome variable is available and comparable across more than one survey for a given scale, we include survey fixed effects, denoted by $SurveySetting_s$.

Because these models are fully interacted, the coefficients of interest in these specifications, β_s, capture the overall association between the psychological construct and the outcome of interest in that particular survey settings s. In these regressions, we cluster standard errors at the survey level. In the models where the outcome variable is only available in one survey setting, we do not include survey fixed effects and standard errors are robust to heteroskedasticity.

We present results using the standardized naive index for each construct, pooling the three-point and five-point response scales together by converting the latter to a three-point version. In Appendix C, we also report results using each scale type separately, and we show that the relationships are robust to using a principal component analysis-based index as well as to excluding highly acquiescent respondents, those who always reply with the highest possible level of agreement in each scale item.

5.2 Mental Health: Agency and Other Mental Well-being Outcomes

Figure 2: Agency and Other Mental Well-being Measures: Regression Results



Notes: This figure displays the $\hat{\beta}$ from estimating equation (1), along with the 90% confidence interval (CI), for each of the other available mental well-being outcomes on each of the psychological construct scales, with both types of variables standardized.

Across the board, psychological agency constructs show a consistent positive association with other measures of mental well-being. In Figure 2 we show the estimated $\hat{\beta}$ from estimating equation (1). In Appendix Tables C1-C4 we present the full regression results and also present results splitting the sample by gender.

We find that a one standard deviation (SD) increase in an individual's goal-setting capacity is linked to meaningful improvements in life satisfaction. This effect is particularly pronounced in the Tanzania survey, where it corresponds to a 0.12 SD increase in current life satisfaction and a 0.18 SD increase in expected life satisfaction. In Malawi, while the relationship remains positive, the effects are more modest: a 0.03 SD increase in current life satisfaction (p-value = 0.19) and a 0.06 SD increase in time use satisfaction. Importantly, the relationship between goal-setting and mental well-being is stronger for women than for men across most outcomes (Table C1).

A similar trend is observed with agricultural self-efficacy. In Tanzania, a one SD increase in the AGSE index is associated with a 0.12 SD improvement in current life satisfaction and a 0.17 SD increase in expected life satisfaction (Table C2). Notably, the association is stronger for women, particularly in terms of their well-being expectations, where the effect is 0.20 SD compared to 0.09 SD for men. In Malawi, the effect is also particularly notable for women, where a one SD increase in female agricultural self-efficacy is linked to a 0.12 SD improvement in life satisfaction and a 0.08 SD increase in time use satisfaction, while the result is null for male respondents.

The generalized livelihood self-efficacy (GLSE) scale also demonstrates strong and consistent relationships with life satisfaction across contexts. In Kenya and Tanzania, a one SD increase in GLSE is associated with a 0.14 and 0.15 SD improvement in current life satisfaction. Additionally, it leads to a 0.15 SD and 0.19 SD increase in expected life satisfaction in Kenya and Tanzania, respectively (Table C3).

Finally, the short-form locus of control scale (S-LOC) also exhibits a robust and statistically significant relationship with mental health and subjective well-being. In Uganda, a one SD increase in S-LOC is linked to a 0.11 SD improvement in current life satisfaction, a 0.16 SD increase in expected life satisfaction, and a 0.15 SD reduction in depression scores. In Malawi, the same increase corresponds to a 0.05 SD rise in life satisfaction, while in Côte d'Ivoire, it is associated with a 0.11 SD improvement in the happiness scale.

Furthermore, S-LOC shows a consistent positive relationship with time use satisfaction across tested contexts (Table C4).

In Appendix Tables C9-C12, we show that the results are very similar when using the principal component analysis-based index, as opposed to the naive index, and Tables C13-C20 present the results splitting the sample by the 3- and 5-point response scales.

5.3 Agency and Economic Achievement

In Table 4, we present the estimated $\hat{\beta}_s$ from equation (1), focusing on comparable economic outcomes across surveys: working for pay, weekly hours worked, weekly earnings, business ownership and food insecurity. Each panel (A–D) of the Table corresponds to regression outcomes where Psych. construct$_{is}$ is replaced by one of the four agency indices. See Appendix Tables C23-C25, for results using the principal component analysis-based index, and splitting by the 3- vs 5-point response scales.

As anticipated based on both theoretical and empirical prior evidence, goal-setting and both self-efficacy measures exhibit a positive and statistically significant relationship with respondents' labor force participation and income-generating capacity. Specifically, for women, a one standard deviation (SD) increase in the goal-setting index is associated with a 3 to 7 percentage point increase in the probability of working, as well as an additional 2 hours of work per week across all surveyed contexts (Kenya, Malawi, and Tanzania). Goal-setting is also positively associated with male weekly earnings in Tanzania, though it is negatively associated with earnings in Malawi. However, the negative coefficient in Malawi is very small in magnitude compared to the positive effects observed elsewhere.

Agricultural self-efficacy shows a strong association with female labor supply in Tanzania, where a one SD increase is linked to a 4 percentage point increase in the probability of working and 2.25 additional hours worked per week. For men, it is also associated with higher earnings. In Malawi, agricultural self-efficacy is also strongly associated with increased working hours among women (2.13 hours).

The livelihood self-efficacy scale demonstrates significant predictive power across income-generating capacity outcomes for both genders in Kenya and Tanzania. A one SD increase in GLSE is associated with a 5 to 9 percentage point increase in the probability of working, 2 to 3 additional hours worked per week, and a 10–13 increase in weekly earnings. Notably, in the Kenya KYEOP survey, where half the sample consists of entrepreneurs, a one SD

Table 4: Agency and Economic Achievement: Regression Results

	Labor supply														
	Extensive margin			**Intensive margin**			**Weekly earnings** (USD)			**Has business?**			**Food insecurity**		
	All	F	M	All	F	M	All	F	M	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
A. GSC															
Kenya IDRC	0.04***	0.04***		1.86***	1.94***		0.70	1.01		0.01	0.01				
	(0.00)	(0.00)		(0.11)	(0.08)		(0.53)	(0.49)		(0.00)	(0.00)				
Malawi LSMS	0.02*	0.03	0.01	0.30	1.70**	–0.79	–0.20	–0.79	–0.45*	0.00	0.01	–0.01	0.05	0.11	0.00
	(0.00)	(0.01)	(0.01)	(0.29)	(0.34)	(0.42)	(0.18)	(0.41)	(0.06)	(0.00)	(0.00)	(0.01)	(0.01)	(0.02)	(0.01)
Tanzania	0.05**	0.07**	0.01*	2.29**	2.27**	3.02*	8.12**	3.80	14.19**				–0.13**	–0.09	–0.19***
	(0.01)	(0.01)	(0.00)	(0.27)	(0.31)	(0.27)	(1.40)	(1.34)	(0.86)				(0.01)	(0.02)	(0.00)
B. AGSE															
Malawi LSMS	0.00	0.01	–0.01	0.96	2.13*	0.07	–0.15	–0.03	–0.46*	–0.00	–0.01	–0.00	–0.03	–0.02	–0.05
	(0.01)	(0.01)	(0.02)	(0.64)	(0.31)	(0.99)	(0.74)	(1.99)	(0.05)	(0.01)	(0.02)	(0.01)	(0.02)	(0.01)	(0.02)
Tanzania	0.02	0.04*	–0.02	1.73	2.25**	0.98	6.31	6.77	3.72***				–0.13**	–0.10	–0.14**
	(0.01)	(0.00)	(0.02)	(0.34)	(0.16)	(0.83)	(1.07)	(2.00)	(0.01)				(0.00)	(0.02)	(0.01)
C. GLSE															
Kenya IDRC	0.05***	0.05***		1.94***	1.88***		0.62	0.60		0.02*	0.02				
	(0.00)	(0.00)		(0.09)	(0.10)		(0.24)	(0.30)		(0.00)	(0.00)				
Kenya KYEOP	0.05***	0.06***	0.02**	2.28***	2.81***	0.97***	10.00***	9.12***	11.92***	0.09***	0.09***	0.11***			
	(0.00)	(0.00)	(0.00)	(0.07)	(0.05)	(0.01)	(0.16)	(0.29)	(0.10)	(0.00)	(0.00)	(0.01)			
Tanzania	0.09***	0.11***	0.04	3.73***	4.03***	4.28*	12.80***	8.11**	21.83**				–0.17***	–0.14***	–0.32***
	(0.00)	(0.00)	(0.01)	(0.10)	(0.16)	(0.35)	(0.71)	(0.82)	(0.87)				(0.04)	(0.05)	(0.10)
D. S-LOC															
Uganda (Kampala)	0.03***	0.04***					0.61	0.83**		–0.00	–0.00				
	(0.00)	(0.00)					(0.27)	(0.18)		(0.00)	(0.00)				
CIV	–0.03***	–0.03***	–0.03**	–1.88*	–1.09**	–2.74**	–3.74***	–2.99***	–3.23**						
	(0.00)	(0.00)	(0.00)	(0.15)	(0.06)	(0.05)	(0.29)	(0.11)	(0.13)						
Malawi LSMS	0.00	0.01***	–0.00	0.12	0.21**	–0.04	3.03**	1.62***	3.67***	0.01**	–0.00	0.02	–0.18***	–0.13***	–0.23***
	(0.00)	(0.00)	(0.00)	(0.23)	(0.02)	(0.01)	(0.32)	(0.11)	(0.00)	(0.00)	(0.00)	(0.02)	(0.02)	(0.04)	(0.03)

Notes: This table presents OLS regressions where the dependent variables are measures of economic achievement. The coefficient displayed corresponds to each psychological construct scale by survey implementation. Extensive margin is an indicator variable equal to one if working for pay. Intensive margin is a measure of weekly working hours, equal to zero if the respondent is not working. Weekly earnings are expressed in international USD dollars. Business ownership is an indicator variable equal to one if the respondent owns or runs a business. Food insecurity is a standardized index based on the FIES scale. Columns labeled All pool female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. All regressions control for demographic controls: gender, age, education, and marital status. In specifications (defined at the outcome-scale level) where there is more than one survey available, the regression includes survey fixed effects. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

increase in livelihood self-efficacy is associated with a 9 percentage point higher probability of business ownership among women and an 11 percentage point increase among men. Consistent with its positive association with entrepreneurship, GLSE is also positively correlated with business profits in this sample (Table C21).

Finally, the relationship between locus of control and economic achievement outcomes appears to be more context-specific. In Kampala (Uganda) and Malawi, locus of control is positively associated with labor supply and earnings. However, in Côte d'Ivoire, it shows a negative relationship with these outcomes. These contrasting results may reflect contextual and cultural differences, as well as differences in sample characteristics. For instance, while the Côte d'Ivoire sample comprises factory workers, the Uganda sample consists of market vendors, and the Malawi sample is substantially more heterogeneous.

Importantly, across the scales, we find that greater individual agency is negatively associated with food insecurity. In Tanzania, a one SD increase in the GSC and AGSE indices is associated with a 0.13 SD decrease in the food insecurity index, while the GLSE is associated with a 0.17 SD decrease. In Malawi, while the GSC and AGSE indices do not have predictive power over food insecurity, locus of control exhibits a strong negative relationship with the index (-0.18 SD).

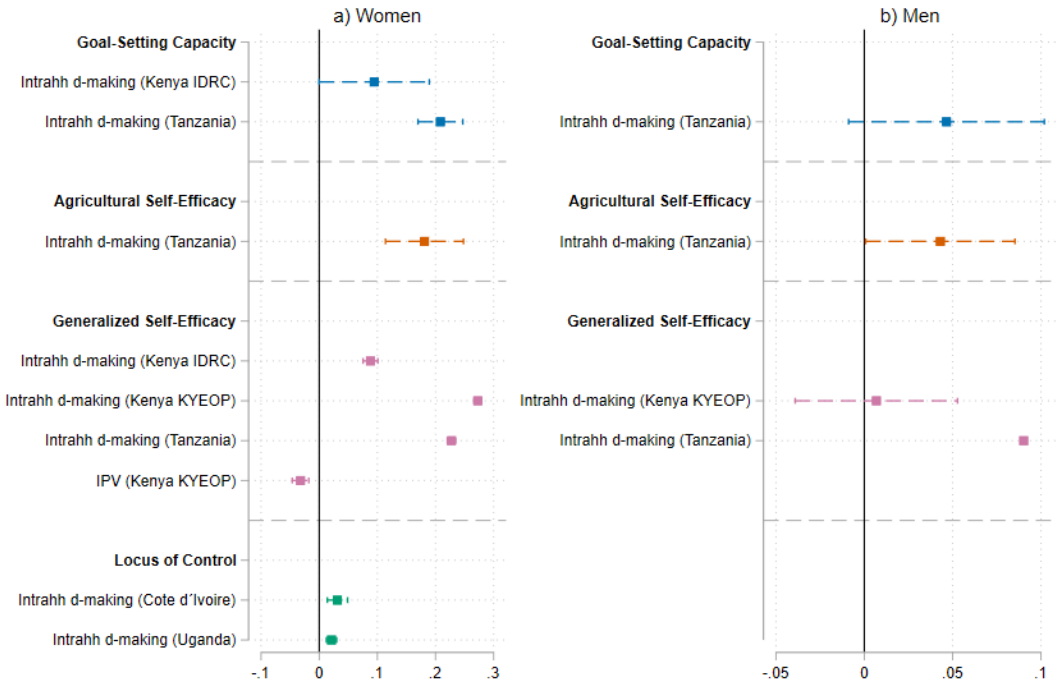
5.4 Agency, Empowerment and Women's Welfare

Individual agency can also affect individuals' intra-household position through greater negotiation skills, positive selection into marriage, or through self-reinforcing mechanisms due to increasing earned income. These outcomes might be of particular importance to women, who tend to have lower social and economic standing in households (Doss, 2013), and may have further welfare consequences, including on experiences of intimate partner violence.

For both women and men, we confirm that our new measures of individual psychological agency are positively associated with intra-household decisionmaking power. In Figure 3, we show the estimated $\hat{\beta}$ from estimating equation (1) for married female and male respondents separately (see Appendix Tables C26-C37 for full regression results).

Evidence from Kenya and Tanzania shows that a one standard deviation (SD) increase in the goal-setting and agricultural self-efficacy index is associated with a 0.10–0.17 SD increase in married individuals' intra-household decision-making index. As with economic

Figure 3: Agency and Empowerment: Intra-Household Decisionmaking and IPV (Married Sample)



Notes: This figure displays the $\hat{\beta}$ from estimating equation (1), along with the 90% confidence interval (CI), for the intra-household decisionmaking index on each of the psychological construct scales, with both types of variables standardized. In the case of GLSE, we also plot the coeffient on having ever experienced IPV.

outcomes, livelihoods self-efficacy is of particular importance, with estimates above 0.20 SD in both the Kenyan entrepreneur sample and the Tanzanian context. Quite significantly, across contexts, the relationship between agency and the measure of intra-household bargaining power is at least twice as large for married women as it is for men.

For locus of control, although the magnitudes are smaller, we also find that a one SD increase in S-LOC is associated with a 0.03 SD and 0.02 SD increase in the intra-household decision-making index for married women in Côte d'Ivoire and among female market vendors, respectively.

Finally, for the livelihoods self-efficacy measure, we can also observe that the association with experiences of IPV for women is negative in the Kenya youth entrepreneur sample: a one SD increase in GLSE is associated with a 3-percentage-point lower probability of reporting having ever experienced IPV. This association holds for both emotional and

physical violence (Table C28).

6 Discussion and Conclusion

Psychological agency constructs are crucial for capturing mental health and are consistently linked to socioeconomic well-being, yet existing measures remain under-tested in non-WEIRD contexts, with no widely available tools for broader or sector-specific measurement. We developed and tested four new scales to capture goal-setting capacity, agricultural self-efficacy, generalized livelihoods self-efficacy, and locus of control to fill these gaps. All scales were tested in at least three contexts across Sub-Saharan Africa.

From a measurement perspective, each scale demonstrated some strong evidence for reliability and validity across multiple settings and all worked best when administered using 5-point Likert scales. Additional pilots are needed to generate more evidence on other forms of reliability, such as inter-rater reliability and test-retest reliability, and to test the tools in low-income contexts outside of Sub-Saharan Africa. When using self-reported measures, concerns can arise due to the possibility that respondents may over- or underestimate their true outcomes, over-report behaviors they perceive as desirable, or have a tendency to agree with statements when in doubt. Though the development of task-based measures may be beneficial for constructs that can also be considered non-cognitive skills (such as goal-setting), self-reporting is generally not a conceptual concern for agency measures, as what matters are respondents' beliefs rather than objectively testable skills. In addition, we show that none of the scales are sensitive to item-order effects and that all measures still display strong associations with key socioeconomic outcomes even after excluding highly acquiescent respondents who consistently agree with all scale items during interviews.

What have we learned about the nature of these concepts through this improved measurement? For goal-setting capacity, goal clarity does not emerge as a distinct concept from general goal creation and action. Rather, the two most important dimensions of goal-setting capacity are i) setting clear and actionable goals and ii) believing in the importance of goal-setting. Regarding self-efficacy, we learned that respondents think of self-confidence as a distinct resource for income-generation—differently than they do about information, financial and social support as well as skills, which all move together. Moreover, we also learned that self-efficacy can vary quite a bit by activity (in the case of

agriculture, by planting crops versus finding and supervising labor, for example)—while the type of behavior (e.g., the ability to search for a resource versus use that resource) is less salient. Lastly, we learned that while in some contexts, who or what is impinging on an individual's life matters a lot in assessing their locus of control (i.e., they have high control at home but low control in their community) in other contexts this differentiation does not matter. Rather, individuals merely distinguish between whether they are in control of their life or not, regardless of the reason. Further testing of the locus of control scale should include measures on religiosity, cultural norms, and experiences of discrimination to better understand why the two- versus one-factor versions may work better in some contexts and with some populations than with others.

In addition, our analysis empirically confirms psychological agency constructs as important components of mental health in lower-income settings. Goal-setting capacity and agricultural self-efficacy are significantly and positively associated with life satisfaction, with similar effect sizes across the two constructs, while internal locus of control and generalized self-efficacy appear to have an even stronger relationship. Interestingly, the relationship with *expected* life satisfaction is larger in magnitude than that with current life satisfaction for all four constructs. Happiness and depression levels are positively and negatively related to internal locus of control, respectively. Interestingly, the relationship between goal-setting and other mental well-being measures is generally stronger for women; the same holds for agricultural self-efficacy. Conversely, the relationship between internal locus of control and other mental well-being measures is stronger for men, with the same holding for generalized self-efficacy.

Our findings also speak to the importance of internal agency for improving one's socioeconomic outcomes. Of the four constructs, generalized livelihoods self-efficacy has the strongest relationship to labor supply (both the likelihood of working and hours worked), followed by goal-setting capacity. Generalized livelihoods self-efficacy also has the strongest relationship to income, though internal locus of control also has a large and significant relationship with earnings (with the exception of formal factory workers in Côte d'Ivoire). Generalized livelihoods self-efficacy is also significantly and positively related to running a business—with a mixed relationship for locus of control and no relationship for goal-setting capacity and agricultural self-efficacy—and to the size of business profits. Internal locus of control and generalized self-efficacy are also both negatively related to

food insecurity, with goal-setting capacity and agricultural self-efficacy having more mixed evidence across settings.

Our results show interesting gender difference in the relationship between agency and socioeconomic outcomes. Goal-setting capacity, generalized self-efficacy and internal locus of control generally matter more for female labor supply than male labor supply, but are significantly more related to earnings and food security for men than for women. Meanwhile, the relationship between agricultural self-efficacy and economic achievement has no clear gendered pattern. Lastly, our findings contribute to our knowledge of the relationship between internal agency and other empowerment measures. The relationship between intra-household decisionmaking and goal-setting, agricultural self-efficacy and generalized self-efficacy is at least twice as large as it is for men in every data collection round (we did not collect locus of control and intra-household decisionmaking in a survey administered to both men and women).

As our findings have illustrated, accurate measurement of mental health—including psychological constructs related to agency—is essential for conducting reliable research on its relationship to longer-term socioeconomic outcomes. Moreover, it enables us to rigorously assess the impact of programs and policies designed to improve agency, and ensuring that detected effects are the true result of interventions and not a result of measurement error. Future research should expand available measurement tools adapted to non-WEIRD settings to a broader range of mental health dimensions, so that we can better understand cross-country and cross-cultural variation, and build a robust evidence base on what works to improve them among underserved populations.

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APPENDIX

A Data and Additional Descriptive Statistics

A.1 Data Collection

Table A1 summarizes the list of surveys in which we embedded our tools, as well as whether the tool was administered to both women and men.

Table A1: Summary of Data Surveys

Survey	Women	Men	Goal-setting capacity	Agricultural SE	Generalized SE	Locus of Control
Benin	✓					✓
Côte d'Ivoire	✓					✓
Kenya (IDRC)	✓		✓		✓	
Kenya (KYEOP)	✓	✓			✓	
Malawi (IFPRI)	✓	✓				✓
Malawi (LSMS)	✓	✓	✓	✓		✓
Tanzania	✓	✓	✓	✓	✓	
Uganda (IRC)	✓			✓		
Uganda (Kampala)	✓					✓

A.1.1 Goal-setting Capacity Scale (GSC) Data

The GSC scale was piloted in three distinct contexts.

1. Kenya IDRC: It was first implemented in April-May 2021 as part of a baseline data collection for a gender-sensitive technical and vocational education training program run by CAP-Youth Empowerment Institute (CAPYEI) in Kenya. Women were recruited via public announcements, registered at training centers nationwide, and were subsequently visited in their homes by the survey team for the interview. The sample included 1,664 women across 18 counties, aged 15-48, with half of the sample from rural areas.

2. Tanzania LSMS: The scale was utilized again in April-July 2022 as part of a nationally representative household survey "Tanzania Methodological Survey Experiment on Household Consumption Measurement" conducted by the World Bank Living Standards Measurement Study (LSMS) program (Dang et al. 2023). The survey spanned 143 enumeration areas across Mainland Tanzania and Zanzibar, including both urban and rural areas. The order of the scale items was randomized, and the sample comprised 1,025 female and 392 male respondents.

3. Malawi LSMS: Lastly, the scale was implemented from July 2022 to March 2023 in Malawi as part of a methodological experiment on time use measurement, also led by the LSMS program (Kilic et al. 2024). The survey was implemented across 72 enumeration areas (EAs) that were selected across the nine most populous districts Southern and Central Malawi, with probability proportional to 2018 Population and Housing Census. The EA sample was split evenly across Southern and Central Malawi, and by urban/rural status. In each EA, listed household needed to have at least one adult man and one adult woman (working age 15-64). Before this third round of data collection, we engaged four local consultants to conduct cognitive interviews for all the MAGNET modules included in the questionnaire. A significant finding from this process was that most respondents interpreted "well-being" primarily in health terms, as one's ability to take care of one's own body or oneself. Therefore, to align more closely with the original intent of the questions, we revised these scale items, replacing "well-being" with "success." The order of the scale items was again randomized, and the sample included 718 female and 717 male respondents. In all three data collections, the response scales were randomized between a 3-point and a 5-point Likert scale.

A.1.2 Agricultural Self-Efficacy Scale (AGSE) Data

The AGSE was implemented in three distinct contexts.

1. Tanzania LSMS: The scale was first implemented in April-July 2022 in the same nationally representative Tanzania survey as the GSC scale (Dang et al. 2023).

2. Uganda IRC: In the spring of 2022, it was then implemented in an endline survey of refugee and host community farmers in Yumbe (Uganda) implemented by the International Rescue Committee (IRC) (Clingain and Rincón, 2022). The sample comprised 148 female and 115 male respondents; 38% of the women and 66% of the men were refugees of South Sudanese origin.

3. Malawi LSMS: Finally, in July 2022-March 2023, the scale was implemented for a third time in the same LSMS-Malawi survey as the GSC (Kilic et al. 2024). Cognitive interviewing indicated the questions were clear and easy to understand.

A.1.3 Generalized Livelihoods Self-Efficacy (GLSE) Data

The GLSE was implemented in three distinct contexts.

1. Kenya IDRC: A first version of the scale, without the 10th item, was piloted in the same IDRC-Kenya data collection as the GSC scale in 2021.

2. Tanzania LSMS: The full version (i.e., including item 10) was secondly implemented in the nationally representative LSMS-Tanzania survey as the GSC and AGSE scales in 2022.

3. Kenya KYEOP: Third, the 10-scale version was embedded in the endline survey of an impact evaluation of a large youth employment project, implemented by the Government of Kenya with funding from the World Bank (KYEOP program), conducted from September to December 2023. It was administered to 9,308 young individuals (5,588 women and 3,720 men), aged 18 to 37, across 15 counties.

A.1.4 Locus of Control (S-LOC) Data

The S-LOC scale was implemented in five distinct contexts.

1. Benin SWEDD: It was first embedded in a baseline survey in Benin, administered as part of the Sahel Women's Empowerment and Demographic Dividend (SWEDD) project to both adolescent girls and their mothers.

2. Malawi IFPRI: Next, it was implemented in Malawi by IFPRI as part of the Women's Empowerment in Agriculure Index (pro-WEAI) with 2,675 women and 1,664 men.

3. Malawi LSMS: We also embedded the S-LOC in the same LSMS Malawi survey as the GSC and AGSE scales. Cognitive interviewing prior to the Malawi LSMS survey led to the rephrasing of the term 'personal interests' to 'myself and my livelihood' in scale item 5, and 'what is important to me' in scale item 7 (shown in Table 1).

4. Cote d'Ivoire OLAM: It was also embedded in a survey of factory workers employed in a cashew processing plant in the outskirts of Abidjan, Côte d'Ivoire's commercial capital (637 female and 120 male respondents). The only eligibility criteria these workers needed to meet was to be at least 18 years old and have a national identity document, with no specific skill requirements. Workers are paid a fixed wage for each

day of work, slightly above the national minimum wage (Donald and Grosset-Touba, 2025).

5. Kampala (Uganda): Lastly, we piloted the S-LOC in a baseline survey of a childcare RCT in Kampala, Uganda with 956 female market vendors. To be eligible, the women had to work in one of six markets in the Greater Kampala Metropolitan Area and have at least one young child.[11].

A.2 Description Data Variables

- Life satisfaction (10-step, Tanzania and Kenya):
  - Current: *"Imagine for a minute that you are living the best life you can possibly imagine. Now imagine that your life is the worst it could possibly be. Imagine a ladder with 10 steps. Suppose we say that the top of the ladder (step 10) represents the best possible life for you and the bottom (step 1) represents the worst possible life for you. Which step on the ladder best represents where you personally stand at the present time?"*
  - Expected: *"Think about your life five years from today. Which step best represents where you personally believe you will be on the ladder five years from now?"*
- Life satisfaction (5-step, Malawi LSMS): *"All things considered, how satisfied are you with your life as a whole these days? Using this card on which 1 means you are "completely dissatisfied" and 5 means you are "completely satisfied" where would you put your satisfaction with your life as a whole?"*
- Time use satisfaction:
  - 3-step, asked at the end of recall time-use module in Malawi LSMS: *"How have you felt about the activities you were engaged in the last week?" 1. Happy 2. Neither happy nor unhappy 3. Unhappy.*
  - 4-step, Kampala survey: *"How happy are you with the amount of leisure time available to you?" 1. Very happy 2. Happy. 3. Not happy 4. Very unhappy.*

[11] For more information on this study, see https://www.socialscienceregistry.org/trials/11467

- Happiness scale, O-HL from the World Values Survey (Inglehart et al., 2022): *"Taking all things together, would you say you are.....?" 1. Very happy 2. Quite happy 3. Not very happy 4. Not at all happy*

- PHQ-4 scale for depression and anxiety (Christodoulaki et al., 2022): *"Over the last 2 weeks, how often have you been bothered by the following problems?" 1. Not at all 2. Several days 3. More than half the days 4. Nearly every day.*

  - *Feeling nervous, anxious or on edge*
  - *Not being able to stop or control worrying*
  - *Little interest or pleasure in doing things*
  - *Feeling down, depressed, or hopeless*

A.3 Additional Descriptive Statistics

Table A2: Summary Statistics: Female Respondents

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Kenya		Malawi			Uganda			Benin	
	IDRC	KYEOP	LSMS	IFPRI	Tanzania	IRC	Kampala	Cote d'Ivoire	Mothers	Girls
Sociodemographics										
Age	23.83	24.77	32.07	28.36	41.68	38.17	34.16	33.25	43.50	15.63
	[4.39]	[2.98]	[11.47]	[9.93]	[15.56]	[11.62]	[9.82]	[7.00]	[11.57]	[3.39]
Married	0.28	0.52	0.79	0.88	0.68	0.82	0.53	0.46	0.79	0.09
	[0.45]	[0.50]	[0.41]	[0.32]	[0.46]	[0.38]	[0.50]	[0.50]	[0.41]	[0.29]
Household size	4.31	4.19	4.99	4.21	3.30	9.39	4.84	5.45		
	[2.02]	[2.29]	[1.84]	[1.88]	[1.89]	[4.32]	[1.91]	[3.75]		
Ever school	1.00	1.00	0.35		0.77	0.55	0.18	0.74	0.25	0.75
	[0.06]	[0.05]	[0.48]		[0.42]	[0.50]	[0.38]	[0.44]	[0.43]	[0.43]
Secondary	0.72	0.35	0.19		0.16	0.03	0.05	0.62	0.12	0.52
	[0.45]	[0.48]	[0.39]		[0.37]	[0.16]	[0.21]	[0.48]	[0.32]	[0.50]
Working for pay	0.30	0.79	0.46		0.33		0.92	0.22		
	[0.46]	[0.41]	[0.50]		[0.47]		[0.26]	[0.42]		
Weekly hours for pay	12.03	29.51	20.03		22.95			8.64		
	[21.19]	[25.80]	[22.52]		[23.82]			[18.81]		
Weekly earnings (w. 5%)	9.30	52.34	6.09		60.06		65.52	22.27		
	[17.77]	[61.94]	[16.96]		[73.51]		[53.46]	[44.47]		
Business owner	0.08	0.48	0.24				0.86			
	[0.27]	[0.50]	[0.42]				[0.35]			
Refugee						0.38				
						[0.49]				
Psych. Construct Scales										
Goal-Setting: GSC 3p	2.89		2.82		2.72					
	[0.22]		[0.20]		[0.41]					
GSC 5p	4.63		4.45		4.21					
	[0.50]		[0.48]		[0.84]					
Agricultural SE: AGSE 3p			2.49		2.38	2.23				
			[0.39]		[0.56]	[0.38]				
AGSE 5p			3.94		3.65					
			[0.77]		[1.03]					
Livelihoods SE: GSLE 3p	2.57	2.70			2.20					
	[0.29]	[0.29]			[0.59]					
GSLE 5p	4.03	4.21			3.07					
	[0.56]	[0.51]			[1.20]					
Locus of Control: S-LOC 3p			2.05	2.02			2.16	2.21		
			[0.31]	[0.31]			[0.28]	[0.34]		
S-LOC 5p			3.16	3.00			3.26	3.32	2.85	2.88
			[0.53]	[0.58]			[0.48]	[0.52]	[0.36]	[0.44]
Sample size	1,664	5,654	718	2,675	1,024	148	956	637	5,675	12,230

Notes: This table presents summary statistics of all female respondents included in the analytical sample. Each column presents sample mean and standard deviation (in brackets) in each of the surveys.

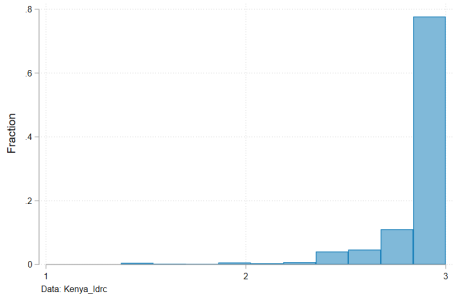
Table A3: Summary Statistics: Male Respondents

	(1)	(2)	(3)	(4)	(5)	(6)
		Malawi				
	Kenya KYEOP	LSMS	IFPRI	Tanzania	Uganda IRC	Cote d'Ivoire
Sociodemographics						
Age	24.67	32.16	32.05	44.53	36.93	30.49
	[2.87]	[12.53]	[11.75]	[16.21]	[10.76]	[6.60]
Married	0.53	0.71	0.90	0.73	0.86	0.25
	[0.50]	[0.45]	[0.30]	[0.44]	[0.35]	[0.43]
Household size	3.39	4.99	4.46	2.92	9.37	4.80
	[2.27]	[1.84]	[1.93]	[1.74]	[4.75]	[3.10]
Ever school	1.00	0.50		0.89	0.77	0.95
	[0.05]	[0.50]		[0.32]	[0.43]	[0.22]
Secondary	0.40	0.32		0.21	0.27	0.93
	[0.49]	[0.47]		[0.41]	[0.45]	[0.26]
Working for pay	0.94	0.68		0.41		0.20
	[0.23]	[0.47]		[0.49]		[0.40]
Weekly hours for pay	43.84	34.27		33.57		7.00
	[21.70]	[26.30]		[26.76]		[17.61]
Weekly earnings (w. 5%)	93.65	21.43		91.23		22.74
	[66.98]	[32.22]		[86.06]		[46.80]
Business owner	0.55	0.25				
	[0.50]	[0.43]				
Refugee					0.66	
					[0.48]	
Psych. Construct Scales						
Goal-Setting: GSC (3p)		2.79		2.79		
		[0.23]		[0.40]		
GSC (5p)		4.37		4.42		
		[0.56]		[0.64]		
Agricultural SE: AGSE (3p)		2.41		2.68	2.30	
		[0.47]		[0.38]	[0.41]	
AGSE (5p)		3.69		4.11		
		[0.93]		[0.70]		
Livelihoods SE: GSLE (3p)	2.72			2.38		
	[0.25]			[0.56]		
GSLE (5p)	4.28			3.49		
	[0.43]			[1.14]		
Locus of Control: S-LOC (3p)		2.11	2.08			2.33
		[0.30]	[0.32]			[0.35]
S-LOC (5p)		3.20	3.14			3.40
		[0.60]	[0.62]			[0.50]
Sample size	3,764	713	1,664	392	115	120

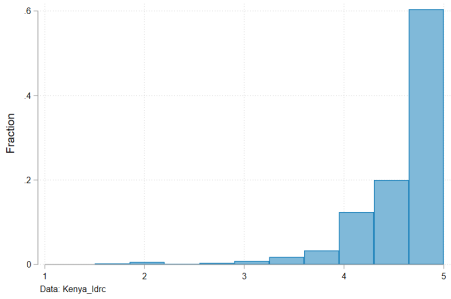
Notes: This table presents summary statistics of all male respondents included in the analytical sample. Each column presents sample mean and standard deviation (in brackets) in each of the surveys.

Figure A1: GSC Scale Distribution

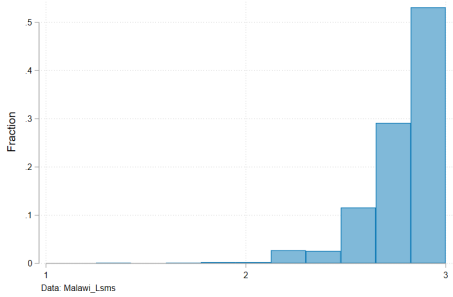
(a) GSC3p: Kenya IDRC



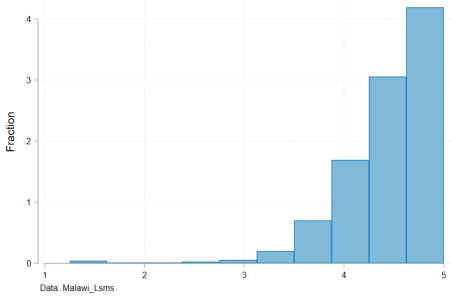
(b) GSC5p: Kenya IDRC



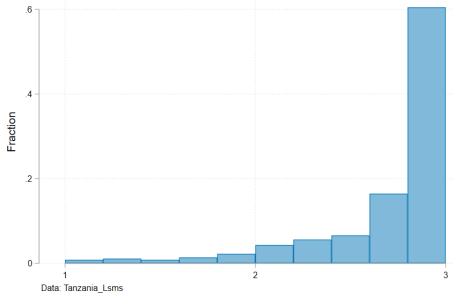
(c) GSC3p: Malawi LSMS



(d) GSC5p: Malawi LSMS



(e) GSC3p: Tanzania LSMS



(f) GSC5p: Tanzania LSMS

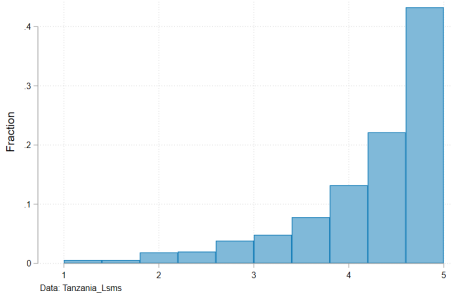
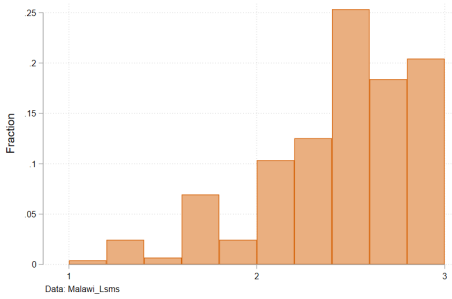
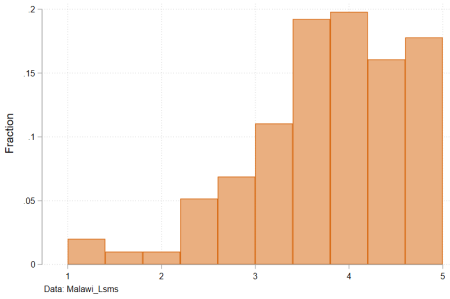


Figure A2: AGSE Scale Distribution

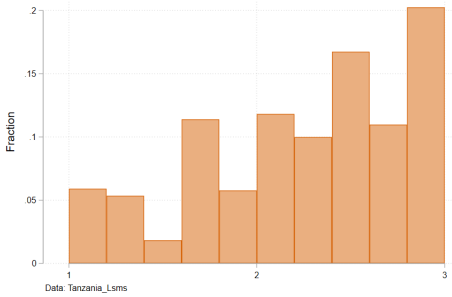
(a) AGSE 3p: Malawi LSMS



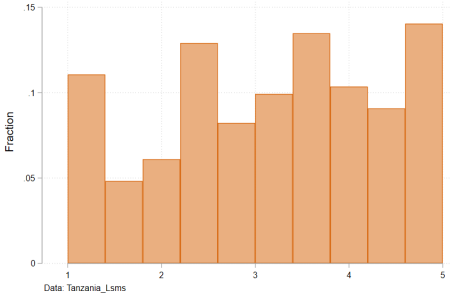
(b) AGSE 5p: Malawi LSMS



(c) AGSE 3p: Tanzania LSMS



(d) AGSE 5p: Tanzania LSMS



(e) AGSE 3p: Uganda IRC

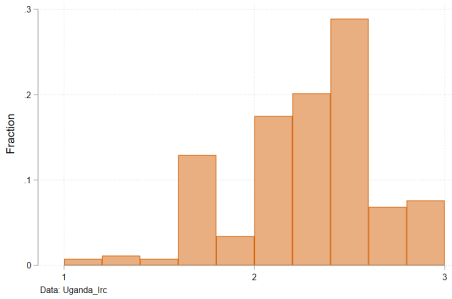
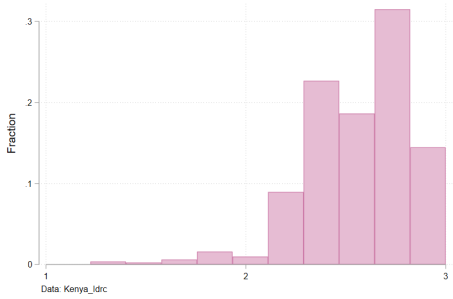
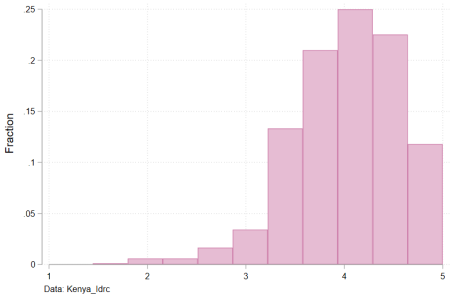


Figure A3: GLSE Scale Distribution

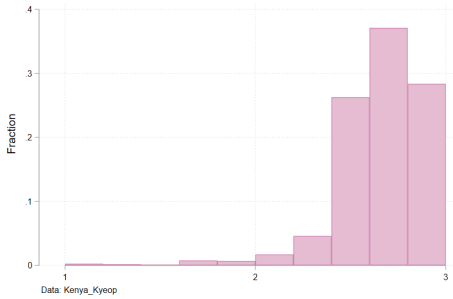
(a) GLSE 3p: Kenya IDRC



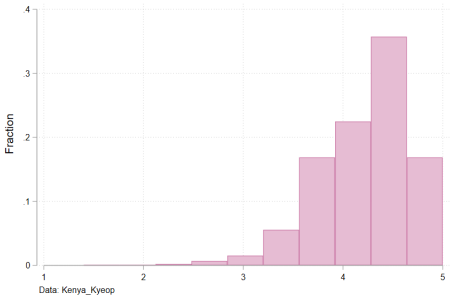
(b) GLSE 5p: Kenya IDRC



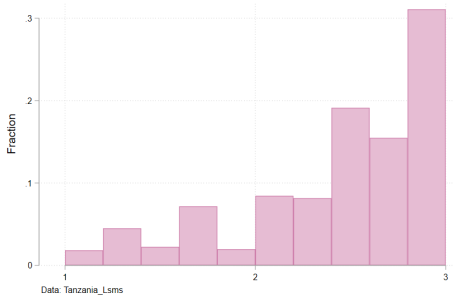
(c) GLSE 3p: Kenya KYEOP



(d) GLSE 5p: Kenya KYEOP



(e) GLSE 3p: Tanzania LSMS



(f) GLSE 5p: Tanzania LSMS

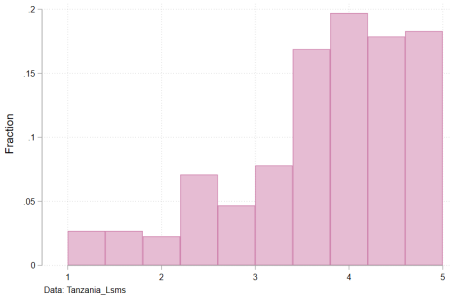
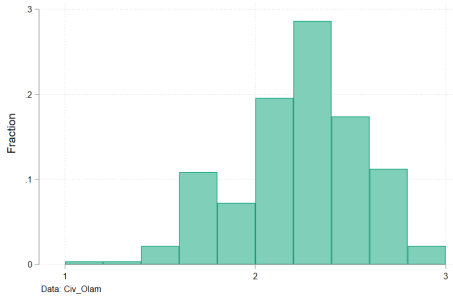
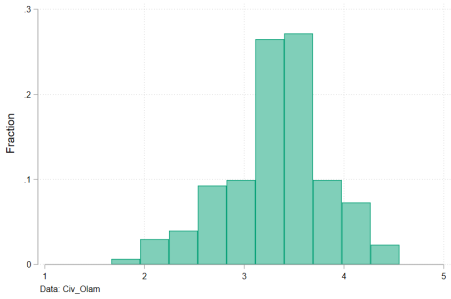


Figure A4: S-LOC Scale Distribution

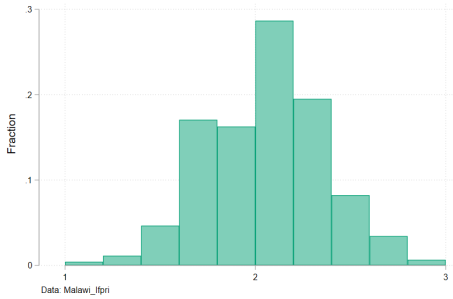
(a) S-LOC 3p: Côte d'Ivoire



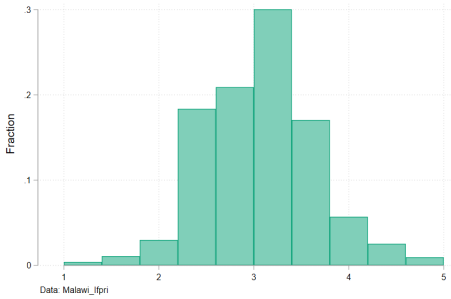
(b) S-LOC 5p: Côte d'Ivoire



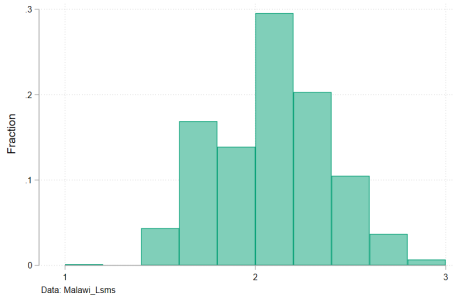
(c) S-LOC 3p: Malawi IFPRI



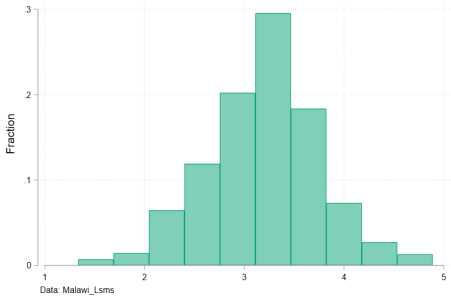
(d) S-LOC 5p: Malawi IFPRI



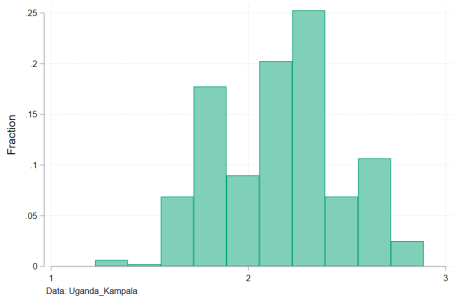
(e) S-LOC 3p: Malawi LSMS



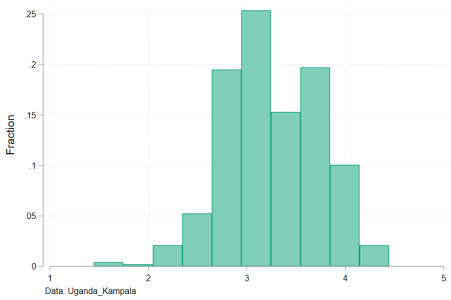
(f) S-LOC 5p: Malawi LSMS



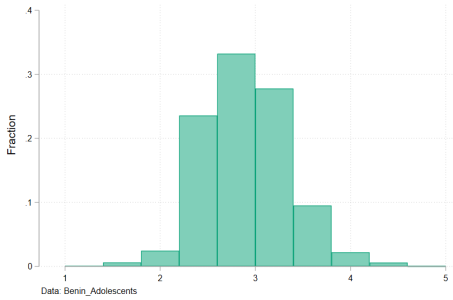
(g) S-LOC 3p: Kampala



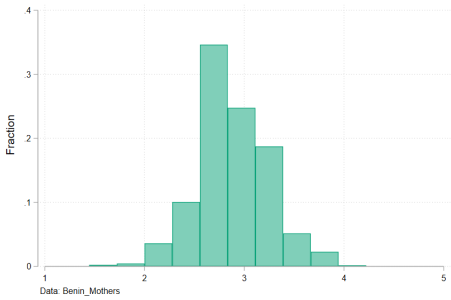
(h) S-LOC 5p: Kampala



(i) S-LOC 5p: Benin (Mothers)



(j) S-LOC 5p: Benin (Adolescents)



B Measurement Properties

B.1 Content and Face Validity

Table B1: Respondent Understanding: Very Unclear and Difficult to Answer

	(1)	(2)	(3)	(4)
	Women		Men	
	3-point	5-point	3-point	5-point
Goal-setting capacity				
Tanzania LSMS	0.04	0.04	0.03	0.02
Malawi LSMS	0.01	0.01	0.01	0.02
Agricultural self-efficacy				
Tanzania LSMS	0.04	0.03	0.02	0.02
Malawi LSMS	0.01	0.01	0.02	0.02
Generalized Livelihoods Efficacy				
Tanzania LSMS	0.04	0.04	0.01	0.04
Kenya KYEOP	0.01	0.01	0.00	0.01
Locus of control				
Cote d'Ivoire OLAM	0.09	0.09		
Malawi IFPRI	0.05	0.05	0.04	0.06
Malawi LSMS	0.01	0.01	0.01	0.02
Uganda Kampala market	0.06	0.08		

Notes: This table reports the percentage of respondent that answered "Very Unclear and Difficult to Answer" to the question "How clear did you find the phrasing of the preceding question?".

Table B2: Respondent Understanding: Slightly Unclear and Slightly Difficult to Answer

	(1)	(2)	(3)	(4)
	Women		Men	
	3-point	5-point	3-point	5-point
Goal-setting capacity				
Tanzania LSMS	0.28	0.27	0.18	0.22
Malawi LSMS	0.06	0.09	0.06	0.07
Agricultural self-efficacy				
Tanzania LSMS	0.27	0.31	0.26	0.27
Malawi LSMS	0.10	0.12	0.10	0.10
Generalized Livelihoods Efficacy				
Tanzania LSMS	0.30	0.30	0.26	0.25
Kenya KYEOP	0.07	0.08	0.07	0.09
Locus of control				
Cote d'Ivoire OLAM	0.18	0.21		
Malawi IFPRI	0.24	0.23	0.25	0.22
Malawi LSMS	0.13	0.15	0.11	0.12
Uganda Kampala market	0.20	0.18		

Notes: This table reports the percentage of respondent that answered "Slightly Unclear and Slightly Difficult to Answer" to the question "How clear did you find the phrasing of the preceding question?".

Table B3: Respondent Understanding: Clear and Simple to Answer

	(1)	(2)	(3)	(4)
	Women		Men	
	3-point	5-point	3-point	5-point
Goal-setting capacity				
Tanzania LSMS	0.69	0.69	0.79	0.77
Malawi LSMS	0.93	0.90	0.92	0.91
Agricultural self-efficacy				
Tanzania LSMS	0.69	0.66	0.72	0.71
Malawi LSMS	0.89	0.87	0.88	0.87
Generalized Livelihoods Efficacy				
Tanzania LSMS	0.67	0.67	0.73	0.71
Kenya KYEOP	0.91	0.91	0.92	0.90
Locus of control				
Cote d'Ivoire OLAM	0.73	0.70		
Malawi IFPRI	0.72	0.72	0.71	0.73
Malawi LSMS	0.86	0.84	0.88	0.86
Uganda Kampala market	0.74	0.74		

Notes: This table reports the percentage of respondent that answered "Clear and Simple to Answer" to the question "How clear did you find the phrasing of the preceding question?".

B.2 Construct Validity: Pairwise Correlations

Table B4: GSC: Construct Validity

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Kenya IDRC			Malawi LSMS			Tanzania LSMS		
	3p	5p	Pooled	3p	5p	Pooled	3p	5p	Pooled
Female respondents									
Age	0.08**	–0.02	0.04	0.23***	0.14**	0.20***	–0.16***	–0.09**	–0.12***
Married	0.03	–0.05	0.00	0.07	0.08	0.06*	0.16***	0.06	0.11***
Household size	–0.02	0.03	–0.01	0.03	0.10*	0.06	0.13***	0.11***	0.11***
Ever school	0.16***	0.02	0.07***	0.00	0.03	–0.02	0.23***	0.19***	0.21***
Secondary	0.14***	0.10***	0.10***	–0.05	–0.00	–0.05	0.15***	0.17***	0.14***
Working for pay	0.11***	0.07**	0.10***	0.02	0.03	0.05	0.17***	0.12***	0.14***
Weekly hours for pay	0.12***	0.07**	0.10***	0.06	0.13**	0.10**	0.12***	0.04	0.09***
Weekly earnings (w. 5%)	0.09***	0.01	0.08***	–0.02	–0.04	–0.00	0.09	0.08	0.05
Business owner	0.04	0.05	0.04*	0.07	0.00	0.06			
Food insecurity				0.11**	0.13**	0.11***	–0.15***		–0.15***
Life satisfaction				0.06	0.06	0.04	0.22***	0.16***	0.19***
Expected life satisfaction							0.28***	0.26***	0.27***
Time use satisfaction				0.09	0.11**	0.09**			
Intra-household d-m	0.10***	0.05	0.09***				0.10**	0.09**	0.12***
Male respondents									
Age				0.19***	0.06	0.13***	–0.10	–0.11	–0.12**
Married				0.11**	0.10*	0.10***	0.05	0.10	0.07
Household size				–0.03	–0.11**	–0.06	0.02	0.14**	0.08
Ever school				–0.06	0.07	–0.02	0.11	–0.02	0.06
Secondary				–0.01	0.17***	0.06	0.10	0.01	0.09*
Working for pay				–0.01	0.06	0.02	0.08	0.01	0.06
Weekly hours for pay				–0.05	0.03	–0.01	0.11	0.11	0.13***
Weekly earnings (w. 5%)				–0.00	0.07	0.04	0.17	0.18*	0.17**
Business owner				–0.03	0.03	–0.00			
Food insecurity				0.06	–0.07	0.01	–0.19***		–0.19***
Life satisfaction				–0.04	0.02	0.02	0.10	0.08	0.11**
Expected life satisfaction							0.10	0.11	0.11**
Time use satisfaction				0.01	0.01	0.04			
Intra-household d-m							0.18**	0.12	0.12**

Notes: Notes: This table presents pairwise correlation coefficients of the GSC scale with each of the outcomes listed on the left column. The statistical associations are estimated separately by survey, respondent´s gender, and scale Likert response scale. * $p < 0.10$, ** $p < 0.05$,*** $p < 0.01$.

Table B5: AGSE: Construct Validity

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Malawi LSMS			Tanzania LSMS			Uganda IRC
	3p	5p	Pooled	3p	5p	Pooled	3p
Female respondents							
Age	0.21***	0.10*	0.14***	–0.08*	–0.08*	–0.07**	0.03
Married	0.12**	0.12**	0.11***	0.13***	0.12***	0.13***	–0.01
Household size	0.05	–0.04	–0.00	0.11***	0.08*	0.09***	0.08
Ever school	0.11**	0.08	0.09**	0.28***	0.22***	0.25***	0.08
Secondary	0.08	0.12**	0.09**	0.21***	0.10**	0.16***	0.06
Working for pay	0.08	–0.04	0.02	0.12***	0.05	0.09***	
Weekly hours for pay	0.11**	0.10*	0.10***	0.16***	0.03	0.10***	
Weekly earnings (w. 5%)	0.09*	0.08	0.10***	0.12	0.12	0.12*	
Business owner	0.07	–0.03	0.02				
Refugee							–0.45***
Food insecurity	–0.03	–0.04	–0.04	–0.16***		–0.16***	
Life satisfaction	0.11**	0.10*	0.10***	0.19***	0.16***	0.18***	
Expected life satisfaction				0.23***	0.25***	0.25***	
Time use satisfaction	0.05	0.10*	0.08**				
Intra-household d-m				0.14***	0.07	0.11***	
Male respondents							
Age	0.22***	0.21***	0.22***	–0.08	–0.12*	–0.10*	0.22**
Married	0.18***	0.26***	0.23***	0.08	0.22***	0.16***	0.11
Household size	–0.00	–0.01	–0.01	0.02	0.08	0.05	0.28***
Ever school	–0.03	0.08	0.03	0.08	0.10	0.10*	0.09
Secondary	0.01	0.14***	0.08**	0.06	–0.03	–0.00	0.05
Working for pay	–0.09*	0.08	–0.01	–0.03	–0.01	–0.01	
Weekly hours for pay	0.00	0.12**	0.07*	0.09	0.03	0.07	
Weekly earnings (w. 5%)	0.10*	0.05	0.09**	0.05	0.08	0.06	
Business owner	0.02	0.05	0.04				
Refugee							–0.53***
Food insecurity	0.03	–0.08	–0.03	–0.12		–0.12	
Life satisfaction	0.04	–0.06	–0.01	0.05	0.23***	0.14***	
Expected life satisfaction				0.04	0.18**	0.11**	
Time use satisfaction	0.05	–0.06	–0.01				
Intra-household d-m				0.11	0.13*	0.13**	

Notes: Notes: This table presents pairwise correlation coefficients of the GSC scale with each of the outcomes listed on the left column. The statistical associations are estimated separately by survey, respondent´s gender, and scale Likert response scale. * $p < 0.10$, ** $p < 0.05$,*** $p < 0.01$.

Table B6: GLSE: Construct Validity

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Kenya IDRC			Kenya KYEOP			Tanzania LSMS		
	3p	5p	Pooled	3p	5p	Pooled	3p	5p	Pooled
Female respondents									
Age	0.16***	0.14***	0.15***	0.03*	0.04**	0.05***	–0.06	–0.05	–0.05
Married	0.02	0.02	0.03	0.03	–0.00	0.02	–0.01	–0.08*	–0.05
Household size	–0.06	–0.09*	–0.07*	–0.07***	–0.08***	–0.07***	0.01	0.09**	0.05
Ever school	–0.00	0.07**	0.02	0.15***	0.11***	0.15***	0.28***	0.20***	0.23***
Secondary	0.08**	0.09***	0.07***	0.09***	0.08***	0.10***	0.24***	0.09**	0.16***
Working for pay	0.12***	0.11***	0.10***	0.16***	0.11***	0.15***	0.28***	0.22***	0.24***
Weekly hours for pay	0.11***	0.11***	0.10***	0.13***	0.12***	0.12***	0.20***	0.17***	0.18***
Weekly earnings (w. 5%)	0.11***	0.10***	0.10***	0.18***	0.17***	0.18***	0.14	0.09	0.11
Business owner	0.07**	0.10***	0.09***	0.21***	0.15***	0.20***			
Business profits(w. 5%)				0.22***	0.17***	0.20***			
Food insecurity							–0.18***		–0.18***
Life satisfaction				0.18***	0.14***	0.16***	0.22***	0.13***	0.18***
Expected life satisfaction				0.19***	0.16***	0.16***	0.21***	0.21***	0.21***
Intra-household d-m	0.11***	0.18***	0.14***	0.29***	0.30***	0.30***	0.23***	0.22***	0.22***
Intimate partner violence				–0.11***	–0.10***	–0.09***			
Male respondents									
Age				0.08***	0.00	0.05***	–0.24***	–0.14**	–0.20***
Married				0.04*	–0.01	0.03*	0.08	0.10	0.10*
Household size				0.00	–0.02	–0.00	0.00	0.06	0.04
Ever school				–0.01	–0.01	–0.01	0.13*	–0.02	0.06
Secondary				0.05**	0.06**	0.04**	0.14**	0.11	0.14***
Working for pay				0.05**	0.12***	0.07***	0.12*	0.07	0.10*
Weekly hours for pay				0.04*	0.11***	0.05**	0.17**	0.11	0.14***
Weekly earnings (w. 5%)				0.19***	0.17***	0.17***	0.18	0.23**	0.21***
Food insecurity							–0.22***		–0.22***
Life satisfaction				0.12***	0.16***	0.15***	0.11	0.23***	0.18***
Expected life satisfaction				0.12***	0.25***	0.15***	0.14**	0.22***	0.19***
Intra-household d-m				–0.15	0.68***	0.23	0.10	0.15**	0.14***

Notes: Notes: This table presents pairwise correlation coefficients of the GLSE scale with each of the outcomes listed on the left column. The statistical associations are estimated separately by survey, respondent´s gender, and scale Likert response scale. * $p < 0.10$, ** $p < 0.05$,*** $p < 0.01$.

Table B7: S-LOC: Construct Validity

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Benin: Adolescents	Mothers	CIV			Malawi IFPRI			Malawi LSMS			Kampala		
	5p	5p	3p	5p	Pooled	3p	5p	Pooled	3p	5p	Pooled	3p	5p	Pooled
Female respondents														
Age	0.06***	–0.03**	0.06	0.06	0.07	–0.03	0.00	–0.02	0.01	0.00	0.01	–0.13***	0.00	–0.05
Married	0.02*	–0.02	0.00	0.11*	0.07	0.06*	–0.03	0.01	0.06	0.13**	0.09**	0.22***	0.09*	0.14***
Household size			–0.07	–0.08	–0.08*	–0.04	–0.03	–0.03*	–0.03	–0.09*	–0.05	–0.04	–0.08*	–0.06*
Ever school	0.08***	0.01	0.09	0.25***	0.17***				0.04	0.10*	0.07*	–0.04	0.03	0.00
Secondary	0.07***	0.02	0.08	0.23***	0.16***				0.10**	0.13**	0.12***	0.08*	0.05	0.07**
Working for pay			–0.11*	0.04	–0.04				–0.03	0.07	0.03	0.12**	0.13***	0.13***
Weekly hours for pay			–0.10	0.04	–0.04				0.04	–0.03	0.02			
Weekly earnings (w. 5%)			–0.09	0.02	–0.05				0.08	0.14***	0.12***	–0.03	0.04	0.02
Business owner									–0.03	0.03	0.02	–0.02	0.01	0.01
Business profits(w. 5%)												0.00	0.07	0.03
Food insecurity									–0.13**	–0.19***	–0.15***			
Life satisfaction									0.07	–0.05	0.01	0.11**	0.17***	0.13***
Expected life satisfaction												0.23***	0.18***	0.19***
Time use satisfaction									–0.01	0.04	0.01	0.16***	0.18***	0.17***
Happiness scale			0.11*	0.12**	0.12***									
Depression scale												–0.17***	–0.18***	–0.17***
Intra-household d-m			0.07	0.05	0.08*							0.10**	–0.00	0.05
WEAI (empowerment)						0.08***	0.12***	0.09***						
Male respondents														
Age			0.12	–0.11	0.02	–0.01	0.10***	0.05**	0.09*	0.05	0.07*			
Married			0.08	0.05	0.02	0.17***	0.13***	0.15***	0.10*	0.06	0.07*			
Household size			0.06	0.02	0.02	–0.13***	–0.09***	–0.10***	–0.07	–0.02	–0.04			
Ever school									0.21***	0.21***	0.19***			
Secondary			0.05	0.02	0.01				0.25***	0.19***	0.19***			
Working for pay			0.07	–0.12	–0.07				0.06	–0.02	0.01			
Weekly hours for pay			–0.04	–0.21	–0.20*				0.08	0.02	0.04			
Weekly earnings (w. 5%)			0.11	–0.14	–0.07				0.21***	0.20***	0.19***			
Business owner									0.14***	0.02	0.07*			
Food insecurity									–0.26***	–0.25***	–0.26***			
Life satisfaction									0.05	0.07	0.07*			
Time use satisfaction									0.06	0.08	0.07*			
Happiness scale			–0.02	0.02	0.07									
Intra-household d-m			0.02	0.32**	0.22**									
WEAI (empowerment)						0.15***	0.23***	0.19***						

Notes: Notes: This table presents pairwise correlation coefficients of the S-LOC scale with each of the outcomes listed on the left column. The statistical associations are estimated separately by survey, respondent´s gender, and scale Likert response scale. * $p < 0.10$, ** $p < 0.05$,*** $p < 0.01$.

B.3 Structural Validity

B.3.1 Goal setting capacity (GSC)

The standardized factor loadings and covariance between sub-factors for the theorized three-factor GSC model (i.e., goal creation and action, goal clarity, and goal importance) can be found in Table B8. The items load on their respective factors strongly and consistently across items, and most of the goodness of fit statistics meet their respective cut-offs. Although None of the models have a non-significant chi-square test, CFI and TLI values are above 0.90 (with the exception of the Kenya 3-point model) and RMSEA is within the good fit range for the 5-point models in Tanzania and Malawi, and within the acceptable fit range for the 3-point model in Tanzania.

The covariance between goal creation and action and goal clarity is consistently high across models, which may suggest that the two sub-factors aren't sufficiently distinct from one another. Exploratory factor analysis suggests that a two-factor model may be more

Table B8: Goal-Setting Capacity Scale: Confirmatory Factor Analysis Loadings

	(1)	(2)	(3)	(4)	(5)
	Tanzania		Kenya		Malawi
	3-point	5-point	3-point	5-point	5-point
Goal importance	0.76	0.75	0.55	0.74	0.64
Goal importance	0.71	0.80	0.60	0.82	0.71
Goal importance	0.58	0.56	0.34	0.50	0.65
Goal creation/action	0.59	0.56	0.46	0.58	0.14
Goal creation/action	0.68	0.69	0.41	0.60	0.41
Goal creation/action	0.81	0.73	0.63	0.70	0.65
Goal clarity	0.75	0.78	0.82	0.56	0.67
Goal clarity	0.76	0.76	0.73	0.83	0.59
Cov: GI-GC	0.76	0.80	0.76	0.75	0.83
Cov: GA-GI	0.78	0.85	0.97	0.75	0.98
Cov: GA-GC	0.97	1.04	0.93	1.09	0.90

Notes: The table presents the standardized loadings and covariance from the three-factor model.

Table B9: Goal-Setting Capacity Scale: CFA Goodness of Fit Statistics

	(1)	(2)	(3)	(4)	(5)
	Tanzania		Kenya		Malawi
	3-point	5-point	3-point	5-point	5-point
CFI	0.96	0.99	0.89	0.95	0.98
TLI	0.94	0.98	0.82	0.92	0.97
RMSEA	0.08	0.05	0.11	0.09	0.04
Chi-square p-value	0.00	0.00	0.00	0.00	0.01

Notes: Cut-offs for goodness of fit are a non-significant chi-square test, CFI and TLI above 0.90, and an RMSEA below 0.05 for good fit or below 0.08 for acceptable fit.

appropriate. Overall, the models with the most simple structure are the 5-point scale in Kenya and 3- and 5-point scales in Tanzania for female respondents, in which the items for goal creation/action and goal clarity load on one factor and the goal importance items load on a second factor. For the most part, the loadings are similar across the three models. The lack of a simple structure in the EFA and the poor fit in the CFA for the 3-point scale in Kenya may be linked to limited variation relative to the 5-point response scale.

We reran the CFA with only two factors and found that the goodness of fit statistics are nearly identical to the three-factor model (see Table B11. In this case, we recommend

going with the more parsimonious, two-factor model for future analysis of the GSC.

Table B10: Goal-Setting Capacity Scale: Confirmatory Factor Analysis Loadings (2 factors)

	(1)	(2)	(3)	(4)	(5)
	Tanzania		Kenya		Malawi
	3-point	5-point	3-point	5-point	5-point
Goal importance	0.76	0.75	0.55	0.74	0.64
Goal importance	0.71	0.80	0.60	0.82	0.71
Goal importance	0.58	0.56	0.31	0.52	0.60
Goal creation/action/clarity	0.79	0.74	0.54	0.74	0.60
Goal creation/action/clarity	0.59	0.56	0.48	0.58	0.13
Goal creation/action/clarity	0.67	0.70	0.41	0.59	0.42
Goal creation/action/clarity	0.76	0.78	0.76	0.84	0.60
Goal creation/action/clarity	0.75	0.78	0.82	0.56	0.67

Notes: The table presents the standardized loadings and covariance from the two-factor model.

Table B11: Goal-Setting Capacity Scale: CFA Goodness of Fit Statistics (2 factors)

	(1)	(2)	(3)	(4)	(5)
	Tanzania		Kenya		Malawi
	3-point	5-point	3-point	5-point	5-point
TLI	0.95	0.98	0.83	0.93	0.96
CFI	0.96	0.99	0.89	0.95	0.98
RMSEA	0.07	0.05	0.11	0.08	0.04
Chi-square p-value	0.00	0.00	0.00	0.00	0.00

Notes: Cut-offs for goodness of fit are a non-significant chi-square test, CFI and TLI above 0.90, and an RMSEA below 0.05 for good fit and 0.08 for acceptable fit.

B.3.2 Generalized Livelihoods Self-Efficacy (GLSE)

The standardized factor loadings and goodness of fit statistics for GLSE can be found in Tables B12 and B13. The two-factor confirmatory factor model that was tested varies slightly between contexts, as item 10 under the "resources and skills" sub-factor was not asked in Kenya. Therefore, the null cells in the table should not be interpreted as poor loadings. The factor loadings for the Tanzania models tend to be higher than those in the Kenya models. Only one of the item loadings is relatively low (0.24) in both Kenya models. The covariance between the two sub-factors is middling, suggesting that the two sub-factors are related but likely distinct enough to be considered separate constructs.

Table B12: Generalized Livelihoods Self-Efficacy Scale: Confirmatory Factor Analysis Loadings

	(1)	(2)	(3)	(4)	(5)	(6)
	Tanzania		Kenya IDRC		Kenya KYEOP	
	3-point	5-point	3-point	5-point	3-point	5-point
Resources and skills	0.74	0.70	0.24	0.24	0.52	0.61
Resources and skills	0.72	0.64	0.46	0.42	0.47	0.57
Resources and skills	0.61	0.59	0.63	0.74	0.39	0.38
Resources and skills	0.62	0.67	.	.	0.57	0.56
Resources and skills	0.57	0.56	0.47	0.42	0.20	0.04
Control and decision-making	0.71	0.76	0.56	0.48	0.47	0.50
Control and decision-making	0.65	0.66	0.42	0.54	0.44	0.47
Control and decision-making	0.75	0.78	0.41	0.60	0.52	0.64
Control and decision-making	0.65	0.67	0.53	0.65	0.41	0.44
Control and decision-making	0.71	0.77	0.44	0.56	0.59	0.63
Cov: Control-Resources	0.61	0.55	0.40	0.38	0.68	0.69

Notes: The table presents the standardized loadings and covariance from the two-factor model

Table B13: Generalized Livelihoods Self-Efficacy Scale: CFA Goodness of Fit Statistics

	(1)	(2)	(3)	(4)	(5)	(6)
	Tanzania		Kenya IDRC		Kenya KYEOP	
	3-point	5-point	3-point	5-point	3-point	5-point
CFI	0.96	0.94	0.83	0.78	0.88	0.91
TLI	0.94	0.92	0.76	0.70	0.84	0.89
RMSEA	0.07	0.08	0.07	0.11	0.06	0.06
Chi-square p-value	0.00	0.00	0.00	0.00	0.00	0.00

Notes: Cut-offs for goodness of fit are a non-significant chi-square test, CFI and TLI above 0.90, and an RMSEA below 0.05 for good fit or below 0.08 for acceptable fit.

None of the models have non-significant chi-square tests, which suggests there may still be room for improvement. However, chi-square tests are also sensitive to large sample sizes which may mean the p-value decrease even when a fit issue is only minor. The remaining fit statistics are above good fit cut-offs for both Tanzania models. For Kenya, only the RMSEA for the 3-point Kenya model is within acceptable fit.

Exploratory factor analysis was conducted to understand alternative latent structures to the theorized models. For both women and men in Tanzania, item 10 "I have the confidence I need to succeed in my income-generating activities" tends to load on a factor by itself while the other items loaded more or less as theorized. We reran the CFA without item 10 and found that the CFI, TLI and RMSEA all improved for both the 3-point (CFI

= 0.975, TLI = 0.965, RMSEA = 0.055) and 5-point versions in Tanzania (CFI = 0.960, TLI = 0.944, RMSEA = 0.072). A similar improvement in fit was observed for the Kenya KYEOP data (3-point: CFI = 0.900, TLI = 0.862, RMSEA = 0.057; 5-point: CFI = 0.931, TLI = 0.904, RMSEA = 0.059). Given that the other items tend to load together in a manner consistent with the theorized fit in the CFA, the scale may benefit from removing this item.

B.3.3 Agricultural Self-Efficacy (AGSE)

For AGSE, the standardized loadings, covariances, and goodness of fit statistics from the five-factor confirmatory factor analysis can be found in Tables B15 and B14, respectively. For pilots in which both 3-point and 5-point versions were tested, item loadings tend to be similar across 3- and 5-point versions. Across the models, the Uganda IRC model varies the most and has several loadings that are relatively low and inconsistent with the other four pilots. This should be viewed in conjunction with the small sample size and the construct validity findings that highlighted a negative correlation between refugee status and the scale, particularly since most of the sample were refugees. The covariance between sub-factors is consistently high across models, which indicates that some of the sub-factors may not be distinct enough from each other to be considered separate sub-factors. With the exception of TLI in the Uganda IRC model, all models have TLI and CFI values above the standard cut-offs. The RMSEA is within acceptable fit for the 5-point model in Tanzania and both Malawi models. None of the models have a non-significant chi-square test.

Table B14: Agricultural Self-Efficacy Scale: CFA Goodness of Fit Statistics

	(1)	(2)	(3)	(4)	(5)
	Tanzania		Malawi		Uganda IRC
	3-point	5-point	3-point	5-point	3-point
CFI	0.96	0.97	0.95	0.95	0.91
TLI	0.93	0.94	0.91	0.91	0.84
RMSEA	0.09	0.08	0.06	0.08	0.09
Chi-square p-value	0.00	0.00	0.00	0.00	0.00

Notes: Cut-offs for goodness of fit are a non-significant chi-square test, CFI and TLI above 0.90, and an RMSEA below 0.05 for good fit or below 0.08 for acceptable fit.

Due to the mixed goodness of fit statistics and high covariances between sub-factors,

Table B15: Agricultural Self-Efficacy Scale: Confirmatory Factor Analysis Loadings

	(1)	(2)	(3)	(4)	(5)
	Tanzania		Malawi		Uganda IRC
	3-point	5-point	3-point	5-point	3-point
Searching	0.73	0.75	0.55	0.62	0.61
Searching	0.70	0.74	0.48	0.55	0.75
Planning	0.75	0.77	0.61	0.67	0.42
Planning	0.70	0.71	0.66	0.73	0.46
Marshaling	0.71	0.75	0.56	0.62	0.33
Marshaling	0.73	0.73	0.59	0.62	0.35
Implementation (People)	0.70	0.79	0.47	0.60	0.72
Implementation (People)	0.79	0.82	0.65	0.73	0.89
Imeplementation (Finance)	0.79	0.77	0.71	0.70	0.78
Imeplementation (Finance)	0.67	0.69	0.50	0.55	0.63
Cov: Searching-Planning	1.07	1.09	1.15	1.01	1.25
Cov: Searching-Marshaling	1.01	1.02	1.15	1.00	1.14
Cov: Searching-Imp(People)	0.86	0.87	0.85	0.78	0.52
Cov: Searching-Imp(Finance)	0.90	0.93	0.88	0.91	0.52
Cov: Planning-Marshaling	0.92	0.98	0.80	0.86	1.84
Cov: Planning-Imp(People)	0.87	0.91	0.73	0.70	0.60
Cov: Planning-Imp(Finance)	0.89	0.94	0.74	0.75	0.85
Cov: Marshaling-Imp(People)	0.95	0.91	0.79	0.75	0.59
Cov: Marshaling-Imp(Finance)	0.97	0.98	1.07	1.13	1.18
Cov: Imp(People)-Imp(Finance)	0.87	0.90	0.67	0.68	0.21

Notes: The table presents the standardized loadings and covariance from the five-factor model

exploratory factor analysis was used to understand alternative model structures. The rotated factor loadings are shown in Tables B16 and B17. The models from Tanzania and Malawi all result in three factors for both men and women. The models in Uganda result in four factors. None of the five theorized factors consistently load together across the ten models; rather, factors tend to be combinations of one to three of the theorized factors. This suggests that a thematic grouping – "planting/harvesting," "labor," and "market engagement" – as opposed to the initially theorized action-based grouping may be more appropriate.

B.3.4 Locus of Control (LOC)

Finally, for LOC, we test two models using confirmatory factor analysis—a two-factor external LOC model with sub-factors for Chance and Powerful Others, and a one-factor external LOC model combining both of these sub-factors. The standardized factor loadings and goodness of fit statistics can be found in Tables B18 and B19 for the two-factor model,

Table B16: Agricultural Self-Efficacy Scale: Exploratory Factor Analysis (Women)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
		Tanzania						Malawi						Uganda			
		3-point			5-point			3-point			5-point			3-point			
Magnet subconstruct	Scale item																
Searching	1	0.71			0.71			0.52			0.45			0.67			
Searching	2		0.37			0.56						0.34		0.45			
Planning	3	0.63			0.54				0.47			0.62			0.55		
Planning	4	0.48			0.54			0.39			0.55			0.36			
Marshaling	5					0.36		0.39			0.43				0.48		
Marshaling	6		0.50			0.59			0.31			0.37				0.38	
Implementing labor	7			0.41			0.52		0.55			0.65					0.84
Implementing labor	8			0.48			0.56	0.33					0.54				0.73
Implementing non-labor	9		0.61				0.42			0.40			0.55			0.64	
Implementing non-labor	10		0.54			0.56			0.68			0.64				0.64	

Table B17: Agricultural Self-Efficacy Scale: Exploratory Factor Analysis (Men)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
		Tanzania						Malawi						Uganda			
		3-point			5-point			3-point			5-point			3-point			
Magnet subconstruct	Scale item																
Searching	1	0.67			0.68			0.67			0.71			0.50			
Searching	2		0.55			0.64			0.32			0.46			0.65		
Planning	3	0.43			0.56				0.57			0.56			0.57		
Planning	4	0.43					0.34	0.55			0.54			0.50			
Marshaling	5		0.43		0.33			0.68			0.68					0.31	
Marshaling	6		0.43			0.67			0.34			0.38			0.50		
Implementing labor	7			0.72			0.70		0.58			0.64					0.69
Implementing labor	8			0.62			0.77			0.43			0.40				0.69
Implementing non-labor	9		0.39				0.45			0.30			0.40			0.63	
Implementing non-labor	10		0.66			0.60			0.51			0.57				0.61	

with the respective one-factor model tables in Appendix Table B20 and B21.[12] For the most part, all goodness of fit statistics meet their cut-off, though there are some variation between 3- and 5-point versions having non-significant chi-square tests.

The two-factor confirmatory factor analysis reveal relatively high covariance between sub-factors, which suggests that the two related constructs may not be distinct enough to be considered separate factors. Moreover, in one of the Malawi models, Uganda models, and the Benin SWEDD Mothers models, the two-factor model has better goodness of fit statistics. Both models appear equally plausible in the Benin SWEDD adolescent models. For all remaining pilots, the one-factor model display better fit. Comparing the goodness

[12]The one-factor, three-item model for internal LOC is not reported in tables as it is a just-identified model and therefore goodness of fit statistics were not estimated.

of fit statistics between the one- and two-factor models indicates that how external locus is perceived—that is, whether respondents meaningfully distinguish which external entity is dictating their life's events (chance/fate or powerful others)—may vary across cultures and contexts.

Table B18: Locus of Control: 2-Factor Confirmatory Factor Analysis Loadings

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Malawi LSMS		Malawi IFPRI		Uganda		SWEDD Adolescents 1	SWEDD Adolescents 2	SWEDD Mothers
	3-point	5-point	3-point	5-point	3-point	5-point	5-point	5-point	5-point
Chance	0.47	0.49	0.52	0.54	0.22	0.18	0.65	0.51	0.13
Chance	0.54	0.57	0.49	0.50	0.53	0.57	0.54	0.61	0.75
Powerful Others	0.29	0.44	0.34	0.38	0.36	0.32	0.74	0.71	0.77
Powerful Others	0.31	0.36	0.23	0.27	0.23	–0.02	0.75	0.68	0.68
Cov: Chance-Powerful Others	1.19	0.94	1.05	1.05	1.03	0.77	1.07	1.08	0.85

Notes: The table presents the standardized loadings and covariance from the two-factor model for external locus of control.

Table B19: Locus of Control: 2-Factor CFA Goodness of Fit Statistics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Malawi LSMS		Malawi IFPRI		Uganda		SWEDD Adolescents 1	SWEDD Adolescents 2	SWEDD Mothers
	3-point	5-point	3-point	5-point	3-point	5-point	5-point	5-point	5-point
CFI	0.97	0.98	0.79	0.79	0.94	0.82	0.95	0.92	0.92
TLI	0.94	0.96	0.61	0.60	0.89	0.67	0.91	0.85	0.86
RMSEA	0.03	0.02	0.08	0.09	0.02	0.05	0.05	0.06	0.06
Chi-square p-value	0.11	0.18	0.00	0.00	0.25	0.02	0.00	0.00	0.00

Notes: Cut-offs for goodness of fit are a non-significant chi-square test, CFI and TLI above 0.90, and an RMSEA below 0.05 for good fit or below 0.08 for acceptable fit.

Table B20: Locus of Control: 1-Factor Confirmatory Factor Analysis Loadings

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Malawi LSMS		Malawi IFPRI		Uganda		SWEDD Adolescents 1	SWEDD Adolescents 2	SWEDD Mothers
	3-point	5-point	3-point	5-point	3-point	5-point	5-point	5-point	5-point
External	0.55	0.56	0.49	0.50	0.53	0.53	0.56	0.64	0.64
External	0.48	0.48	0.53	0.54	0.22	0.20	0.68	0.53	0.11
External	0.37	0.50	0.53	0.54	0.23	0.33	0.35	0.44	0.04
External	0.31	0.42	0.36	0.39	0.36	0.28	0.75	0.72	0.77
External	0.34	0.35	0.24	0.28	0.23	–0.05	0.76	0.70	0.68
External	0.47	0.40	0.46	0.59	0.21	0.28	0.62	0.66	0.37

Notes: The table presents the standardized loadings from the one-factor model for external locus of control.

Table B21: Locus of Control: 1-Factor CFA Goodness of Fit Statistics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Malawi LSMS		Malawi IFPRI		Uganda		SWEDD Adolescents 1	SWEDD Adolescents 2	SWEDD Mothers
	3-point	5-point	3-point	5-point	3-point	5-point	5-point	5-point	5-point
CFI	0.95	0.98	0.79	0.79	0.97	0.83	0.94	0.91	0.92
TLI	0.92	0.97	0.65	0.64	0.95	0.72	0.90	0.85	0.87
RMSEA	0.03	0.02	0.08	0.08	0.02	0.05	0.05	0.06	0.05
Chi-square p-value	0.06	0.22	0.00	0.00	0.33	0.03	0.00	0.00	0.00

Notes: Cut-offs for goodness of fit are a non-significant chi-square test, CFI and TLI above 0.90, and an RMSEA below 0.05 for good fit or below 0.08 for acceptable fit.

B.4 Internal Reliability

Table B22: Internal Consistency Reliability: Cronbach's Alpha

	(1)	(2)	(3)	(4)
	Women		Men	
	3-point	5-point	3-point	5-point
Goal-Setting Capacity (GSC)				
Kenya IDRC	0.70	0.81		
Malawi LSMS	0.39	0.67	0.51	0.72
Tanzania LSMS	0.84	0.87	0.85	0.79
Agricultural Self-Efficacy (AGSE)				
Malawi LSMS	0.75	0.79	0.84	0.87
Tanzania LSMS	0.91	0.92	0.91	0.91
Uganda IRC	0.75		0.83	
Generalized Livelihoods Self-Efficacy (GLSE)				
Kenya IDRC	0.58	0.62		
Kenya KYEOP	0.67	0.70	0.58	0.67
Tanzania LSMS	0.87	0.88	0.79	0.78
Locus of Control (S-LOC)				
Benin (mothers)		0.12		
Benin (adolescents)		0.36		
Cote d'Ivoire OLAM	0.46	0.46	0.50	0.53
Malawi IFPRI	0.28	0.31	0.34	0.42
Malawi LSMS	0.27	0.28	0.27	0.44
Uganda Kampala market	0.22	0.22		

Notes: This table reports the Cronbach's Alpha coefficient for each of the scale implementations.

Cronbach's alpha from each pilot for all scales are displayed in Table B22 The internal reliability of the GSC scale is high in both Kenya and Tanzania for both female and male respondents. In Kenya, where only women were interviewed, the alpha values are 0.70 (3-point scale) and 0.81 (5-point scale). In Tanzania, alpha values range from 0.84 to 0.87 for women and 0.79 to 0.85 for men. However, in Malawi, the internal reliability coefficients score are lower, with alpha values ranging from 0.39 to 0.67 for women and 0.51 to 0.72 for men. This discrepancy might be attributed to the lower educational levels in the Malawi sample, as seen in the descriptive statistics (Tables A2, A3), where only 32% of the female respondents had ever attended school, potentially affecting their understanding of the survey items. Alternatively, this may be due to limited variation in responses in the 3-point versions (e.g., a majority of responses falling into one category).

For AGSE, Cronbach's alpha is high for both female and male respondents across the Tanzania, Malawi, and Uganda studies, ranging from 0.75 to 0.92 for women and from 0.83 to 0.91 for men.

Internal reliability of the GLSE scale is just below or above the 0.6 cutoff for both female and male respondents in the Kenya and Tanzania studies. Cronbach's alpha ranged from 0.58 to 0.88 for women and from 0.58 to 0.79 for men. The two values just below the cutoff were for 3-point versions of the scale.

Finally, for LOC, the internal LOC items (2,4, and 7) are reverse coded and all items corrected for acquiescence bias (as Laajaj and Macours 2019). All values are below the 0.80 acceptable threshold, ranging from 0.12 to 0.45. However, when the items are not reverse coded, the alphas improve to 0.37 to 0.81, suggesting that there may be an issue with response bias in addition to possible poor correlations between items. The poor Cronbach's alpha persists even when analyzing internal and external LOC separately. Since the factor analysis results reveal consistently strong model fit for the one- and two-factor external LOC, we are less concerned about the inconsistency in Cronbach's alpha.

B.5 Additional Measurement Properties Analysis

Table B23: First Item Order Effect: R-squared

	(1)	(2)	(3)	(4)
	Women		Men	
	3-point	5-point	3-point	5-point
Goal-Setting Capacity (GSC)				
Malawi LSMS	0.02	0.01	0.02	0.02
Tanzania LSMS	0.02	0.02	0.05	0.04
Agricultural Self-Efficacy (AGSE)				
Malawi LSMS	0.03	0.01	0.01	0.03
Tanzania LSMS	0.03	0.02	0.03	0.03
Generalized Livelihoods Self-Efficacy (GLSE)				
Kenya KYEOP	0.00	0.01	0.01	0.01
Tanzania LSMS	0.02	0.02	0.05	0.05
Locus of Control (S-LOC)				
Malawi LSMS	0.05	0.02	0.02	0.01
Uganda Kampala market	0.03	0.00		

Notes: This table reports the R-squared of regressing each of the scale implementations on a set of dummies for each of the scale items been asked first.

Table B24: S-LOC: Construct Validity (Acquiescence Bias Correction)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Benin: Adolescents	Mothers	CIV			Malawi IFPRI			Malawi LSMS			Kampala		
	5p	5p	3p	5p	Pooled	3p	5p	Pooled	3p	5p	Pooled	3p	5p	Pooled
Female respondents														
Age	0.06***	–0.03**	0.06	0.06	0.07	–0.03	0.00	–0.02	0.01	0.00	0.01	–0.13***	0.00	–0.05
Married	0.02*	–0.02	0.00	0.11*	0.07	0.06*	–0.03	0.01	0.06	0.13**	0.09**	0.22***	0.09*	0.14***
Household size			–0.07	–0.08	–0.08*	–0.04	–0.03	–0.03*	–0.03	–0.09*	–0.05	–0.04	–0.08*	–0.06*
Ever school	0.08***	0.01	0.09	0.25***	0.17***				0.04	0.10*	0.07*	–0.04	0.03	0.00
Secondary	0.07***	0.02	0.08	0.23***	0.16***				0.10**	0.13**	0.12***	0.08*	0.05	0.07**
Working for pay			–0.11*	0.04	–0.04				–0.03	0.07	0.03	0.12**	0.13***	0.13***
Weekly hours for pay			–0.10	0.04	–0.04				0.04	–0.03	0.02			
Weekly earnings (w. 5%)			–0.09	0.02	–0.05				0.08	0.14***	0.12***	–0.03	0.04	0.02
Business owner									–0.03	0.03	0.02	–0.02	0.01	0.01
Business profits(w. 5%)												0.00	0.07	0.03
Food insecurity									–0.13**	–0.19***	–0.15***			
Life satisfaction									0.07	–0.05	0.01	0.11**	0.17***	0.13***
Expected life satisfaction												0.23***	0.18***	0.19***
Time use satisfaction									–0.01	0.04	0.01	0.16***	0.18***	0.17***
Happiness scale			0.11*	0.12**	0.12***									
Depression scale												–0.17***	–0.18***	–0.17***
Intra-household d-m			0.07	0.05	0.08*							0.10**	–0.00	0.05
WEAI (empowerment)						0.08***	0.12***	0.09***						
Male respondents														
Age			0.12		0.02	–0.01	0.10***	0.05**	0.09*	0.05	0.07*			
Married			0.08		0.02	0.17***	0.13***	0.15***	0.10*	0.06	0.07*			
Household size			0.06		0.02	–0.13***	–0.09***	–0.10***	–0.07	–0.02	–0.04			
Ever school			0.09		0.05				0.21***	0.21***	0.19***			
Secondary			0.05	0.02	0.01				0.25***	0.19***	0.19***			
Working for pay			0.07	–0.12	–0.07				0.06	–0.02	0.01			
Weekly hours for pay			–0.04	–0.21	–0.20*				0.08	0.02	0.04			
Weekly earnings (w. 5%)			0.11	–0.14	–0.07				0.21***	0.20***	0.19***			
Business owner									0.14***	0.02	0.07*			
Food insecurity									–0.26***	–0.25***	–0.26***			
Life satisfaction									0.05	0.07	0.07*			
Time use satisfaction									0.06	0.08	0.07*			
Happiness scale			–0.02	0.02	0.07									
Intra-household d-m			0.02	0.32**	0.22**									
WEAI (empowerment)						0.15***	0.23***	0.19***						

Notes: Notes: This table presents pairwise correlation coefficients of the S-LOC scale with each of the outcomes listed on the left column. The statistical associations are estimated separately by survey, respondent´s gender, and scale Likert response scale. * $p < 0.10$, ** $p < 0.05$,*** $p < 0.01$.

Table B25: Internal Consistency Reliability: Cronbach's Alpha (Acquiescence Bias Correction)

	(1)	(2)	(3)	(4)
	Women		Men	
	3-point	5-point	3-point	5-point
Locus of Control (S-LOC)				
Benin (mothers)		0.12		
Benin (adolescents)		0.36		
Cote d'Ivoire OLAM	0.46	0.46	0.50	0.53
Malawi IFPRI	0.28	0.31	0.34	0.42
Malawi LSMS	0.27	0.28	0.27	0.44
Uganda Kampala market	0.22	0.22		

Notes: This table reports the Cronbach's Alpha coefficient for each of the scale implementations.

C Additional Regression Analysis

C.1 Mental Health Outcomes

C.1.1 Main Results

Table C1: Goal-Setting Capacity and Mental Health: Regression Analysis

	Life satisfaction											
	Current life						**Expected life**			**Time use**		
	10-step			5-step			10-step			3-step		
	All	F	M	All	F	M	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Tanzania × **Goal-setting (GSC)**	0.12***	0.13***	0.09*				0.18***	0.21***	0.08			
	(0.02)	(0.03)	(0.05)				(0.02)	(0.03)	(0.05)			
Malawi LSMS × **Goal-setting (GSC)**				0.03	0.05	0.03				0.06**	0.10**	0.04
				(0.03)	(0.04)	(0.03)				(0.03)	(0.04)	(0.04)
Female	0.07			0.07			0.06			0.23***		
	(0.06)			(0.05)			(0.06)			(0.05)		
Age	-0.00	0.00	-0.00	-0.00	-0.00	0.01	-0.01***	-0.01***	-0.01***	0.00	-0.00	0.01**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Secondary	0.64***	0.67***	0.59***	-0.22***	-0.14	-0.26***	0.58***	0.57***	0.60***	-0.12**	0.05	-0.24***
	(0.08)	(0.10)	(0.12)	(0.06)	(0.09)	(0.09)	(0.07)	(0.09)	(0.11)	(0.06)	(0.09)	(0.08)
Married	0.29***	0.32***	0.22**	-0.10	0.05	-0.32***	0.17***	0.19***	0.11	-0.11*	0.02	-0.33***
	(0.06)	(0.07)	(0.10)	(0.06)	(0.09)	(0.11)	(0.06)	(0.07)	(0.11)	(0.07)	(0.09)	(0.12)
Outcome mean	-0.00	-0.00	-0.00	-0.00	0.05	-0.05	-0.00	0.00	-0.01	0.00	0.12	-0.12
Observations	1,416	1,024	392	1,424	713	711	1,416	1,024	392	1,424	713	711

Notes: This table presents OLS regressions where the dependent variable are psychological well-being measures. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C2: Agricultural Self-Efficacy and Mental Health: Regression Analysis

	Life satisfaction											
	Current life						**Expected life**			**Time use**		
	10-step			5-step			10-step			3-step		
	All	F	M	All	F	M	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Tanzania × **Agricultural SE (AGSE)**	0.12***	0.12***	0.12***				0.17***	0.20***	0.09*			
	(0.03)	(0.03)	(0.05)				(0.03)	(0.03)	(0.05)			
Malawi LSMS × **Agricultural SE (AGSE)**				0.05**	0.12***	0.01				0.04	0.08**	0.01
				(0.03)	(0.04)	(0.04)				(0.03)	(0.04)	(0.04)
Female	0.08			0.06			0.07			0.23***		
	(0.06)			(0.05)			(0.06)			(0.05)		
Age	-0.00	0.00	-0.00	-0.00	-0.00	0.01	-0.01***	-0.01***	-0.01***	0.00	-0.00	0.01**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Secondary	0.64***	0.66***	0.61***	-0.23***	-0.17*	-0.26***	0.59***	0.56***	0.62***	-0.13**	0.02	-0.23***
	(0.08)	(0.10)	(0.12)	(0.06)	(0.09)	(0.09)	(0.07)	(0.08)	(0.11)	(0.06)	(0.09)	(0.09)
Married	0.28***	0.31***	0.19*	-0.12*	0.03	-0.33***	0.16***	0.18***	0.09	-0.12*	0.01	-0.33***
	(0.06)	(0.07)	(0.10)	(0.07)	(0.09)	(0.11)	(0.06)	(0.07)	(0.11)	(0.07)	(0.09)	(0.12)
Outcome mean	-0.00	-0.00	-0.00	-0.00	0.05	-0.05	-0.00	0.00	-0.01	0.00	0.12	-0.12
Observations	1,416	1,024	392	1,424	713	711	1,416	1,024	392	1,424	713	711

Notes: This table presents OLS regressions where the dependent variable are psychological well-being measures. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C3: Generalized Livelihooods Self-Efficacy and Mental Health: Regression Analysis

	Life satisfaction					
	Current life (10-step)			**Expected life** (10-step)		
	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)
Kenya KYEOP × **Generalized Livelihoods SE (GLSE)**	0.14***	0.13**	0.17***	0.15**	0.15**	0.17***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Tanzania × **Generalized Livelihoods SE (GLSE)**	0.15***	0.15***	0.19*	0.19**	0.18***	0.19**
	(0.00)	(0.00)	(0.02)	(0.00)	(0.00)	(0.01)
Female	-0.00			0.20*		
	(0.02)			(0.02)		
Age	-0.00	-0.00	-0.01	-0.01*	-0.01*	-0.01
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Secondary	0.29	0.31	0.28*	0.20	0.18	0.23
	(0.05)	(0.07)	(0.04)	(0.06)	(0.07)	(0.05)
Married	0.10	0.13	0.04	0.02	0.04	-0.03
	(0.04)	(0.05)	(0.02)	(0.04)	(0.05)	(0.01)
Survey FE	✓	✓	✓	✓	✓	✓
Outcome mean	-0.00	-0.02	0.03	0.00	0.06	-0.10
Observations	10,724	6,612	4,112	10,724	6,612	4,112

Notes: This table presents OLS regressions where the dependent variable are psychological well-being measures. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C4: Locus of Control and Mental Health: Regression Analysis

	Life satisfaction									**Other mental wellbeing**			
	Current life				**Expected life**	**Time use**				**Happiness**			**Depression**
	10-step	5-step			10-step	3-step			4-step				
	F	All	F	M	F	All	F	M	F	All	F	M	F
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Kampala × **Locus of control (S-LOC)**	0.11***				0.16***				0.15***				-0.15***
	(0.03)				(0.03)				(0.03)				(0.03)
Malawi LSMS × **Locus of control (S-LOC)**		0.06**	0.01	0.10***		0.06**	0.01	0.10**					
		(0.03)	(0.04)	(0.04)		(0.03)	(0.04)	(0.04)					
CIV × **Locus of control (S-LOC)**										0.11***	0.12**	0.07	
										(0.04)	(0.04)	(0.10)	
Female		0.08				0.24***				0.19			
		(0.05)				(0.05)				(0.13)			
Age	0.01**	0.00	-0.00	0.01	-0.01***	0.00	-0.00	0.01**	-0.00	-0.00	-0.00	-0.01	-0.01*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.02)	(0.00)
Secondary	0.36**	-0.24***	-0.15	-0.30***	0.03	-0.14**	0.04	-0.27***	-0.00	-0.04	-0.06	0.27	-0.16
	(0.16)	(0.06)	(0.09)	(0.09)	(0.12)	(0.06)	(0.09)	(0.09)	(0.16)	(0.09)	(0.10)	(0.40)	(0.14)
Married	0.34***	-0.11*	0.05	-0.33***	0.29***	-0.12*	0.03	-0.34***	0.22***	0.26***	0.29***	0.04	-0.29***
	(0.07)	(0.07)	(0.09)	(0.11)	(0.07)	(0.07)	(0.09)	(0.12)	(0.07)	(0.09)	(0.10)	(0.40)	(0.07)
Outcome mean	-0.00	-0.00	0.05	-0.05	0.00	0.00	0.12	-0.12	-0.00	-0.00	0.03	-0.19	0.00
Observations	956	1,424	713	711	956	1,424	713	711	956	578	493	85	956

Notes: This table presents OLS regressions where the dependent variable are psychological well-being measures. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C.1.2 Excluding Acquiescent Respondents

Table C5: Goal-Setting Capacity and Mental Health: Regression Analysis (Exc. Acquiescent Respondents)

	Life satisfaction											
	Current life						**Expected life**			**Time use**		
	10-step			5-step			10-step			3-step		
	All	F	M	All	F	M	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Tanzania × **Goal-setting (GSC)**	0.09***	0.10***	0.07				0.18***	0.20***	0.07			
	(0.03)	(0.03)	(0.06)				(0.03)	(0.03)	(0.06)			
Malawi LSMS × **Goal-setting (GSC)**				0.01	0.03	0.01				0.05	0.07	0.04
				(0.03)	(0.06)	(0.04)				(0.04)	(0.06)	(0.05)
Female	0.00			0.07			-0.02			0.19***		
	(0.08)			(0.07)			(0.08)			(0.07)		
Age	-0.00*	-0.00	-0.00	0.00	-0.00	0.01	-0.01***	-0.01***	-0.01***	0.00	-0.01	0.01**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)
Secondary	0.61***	0.70***	0.40**	-0.24***	-0.20*	-0.25**	0.71***	0.73***	0.65***	-0.10	0.00	-0.17*
	(0.12)	(0.17)	(0.16)	(0.08)	(0.11)	(0.10)	(0.11)	(0.14)	(0.18)	(0.08)	(0.11)	(0.10)
Married	0.28***	0.29***	0.24*	-0.13	-0.03	-0.27**	0.21***	0.24***	0.13	-0.11	0.03	-0.37**
	(0.07)	(0.08)	(0.12)	(0.08)	(0.11)	(0.13)	(0.07)	(0.08)	(0.15)	(0.09)	(0.11)	(0.16)
Outcome mean	-0.15	-0.17	-0.11	-0.03	0.01	-0.07	-0.16	-0.19	-0.09	-0.05	0.05	-0.14
Observations	687	519	168	889	419	470	687	519	168	889	419	470

Notes: This table presents OLS regressions where the dependent variable are psychological well-being measures. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C6: Agricultural Self-Efficacy and Mental Health: Regression Analysis (Exc. Acquiescent Respondents)

	Life satisfaction											
	Current life						**Expected life**			**Time use**		
	10-step			5-step			10-step			3-step		
	All	F	M	All	F	M	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Tanzania × **Agricultural SE (AGSE)**	0.12***	0.12***	0.14**				0.16***	0.20***	0.04			
	(0.03)	(0.04)	(0.06)				(0.03)	(0.04)	(0.06)			
Malawi LSMS × **Agricultural SE (AGSE)**				0.02	0.06	-0.00				0.02	0.05	-0.00
				(0.03)	(0.05)	(0.04)				(0.03)	(0.05)	(0.04)
Female	0.06			0.02			0.06			0.20***		
	(0.06)			(0.06)			(0.06)			(0.06)		
Age	-0.00	-0.00	-0.00	-0.00	-0.00	0.00	-0.01***	-0.01***	-0.01***	0.00	-0.00	0.01***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Secondary	0.61***	0.63***	0.56***	-0.29***	-0.24**	-0.32***	0.52***	0.50***	0.51***	-0.18***	-0.04	-0.29***
	(0.08)	(0.10)	(0.12)	(0.07)	(0.10)	(0.09)	(0.08)	(0.09)	(0.12)	(0.07)	(0.10)	(0.09)
Married	0.24***	0.29***	0.13	-0.07	0.09	-0.29**	0.15**	0.17**	0.08	-0.12	0.02	-0.36***
	(0.06)	(0.07)	(0.11)	(0.07)	(0.10)	(0.12)	(0.06)	(0.07)	(0.12)	(0.07)	(0.10)	(0.12)
Outcome mean	-0.04	-0.04	-0.04	-0.03	-0.01	-0.06	-0.05	-0.05	-0.06	-0.02	0.09	-0.13
Observations	1,213	902	311	1,208	604	604	1,213	902	311	1,208	604	604

Notes: This table presents OLS regressions where the dependent variable are psychological well-being measures. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C7: Generalized Livelihooods Self-Efficacy and Mental Health: Regression Analysis (Exc. Acquiescent Respondents)

	Life satisfaction					
	Current life (10-step)			**Expected life** (10-step)		
	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)
Kenya KYEOP × **Generalized Livelihoods SE (GLSE)**	0.08***	0.07**	0.10***	0.12**	0.13**	0.11***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Tanzania × **Generalized Livelihoods SE (GLSE)**	0.12**	0.13***	0.14**	0.19**	0.17***	0.18**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)
Female	-0.02			0.22*		
	(0.02)			(0.03)		
Age	-0.01*	-0.01*	-0.01	-0.01***	-0.01**	-0.01*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Secondary	0.26*	0.27*	0.25*	0.21	0.18	0.24*
	(0.03)	(0.04)	(0.02)	(0.04)	(0.05)	(0.03)
Married	0.08	0.10	0.06	0.01	0.04	-0.05
	(0.05)	(0.08)	(0.02)	(0.05)	(0.07)	(0.02)
Survey FE	✓	✓	✓	✓	✓	✓
Outcome mean	-0.08	-0.11	-0.05	-0.06	0.00	-0.17
Observations	8,495	5,172	3,323	8,495	5,172	3,323

Notes: This table presents OLS regressions where the dependent variable are psychological well-being measures. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C8: Locus of Control and Mental Health: Regression Analysis (Exc. Acquiescent Respondents)

	Life satisfaction									**Other mental wellbeing**			
	Current life				**Expected life**	**Time use**				**Happiness**			**Depression**
	10-step	5-step			10-step	3-step			4-step				
	F	All	F	M	F	All	F	M	F	All	F	M	F
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Kampala × **Locus of control (S-LOC)**	0.11***				0.16***				0.15***				-0.15***
	(0.03)				(0.03)				(0.03)				(0.03)
Malawi LSMS × **Locus of control (S-LOC)**		0.05*	0.01	0.09**		0.06**	0.00	0.10**					
		(0.03)	(0.04)	(0.04)		(0.03)	(0.04)	(0.04)					
CIV × **Locus of control (S-LOC)**										0.11***	0.12**	0.09	
										(0.04)	(0.05)	(0.12)	
Female		0.08				0.24***				0.17			
		(0.05)				(0.05)				(0.13)			
Age	0.01**	0.00	-0.00	0.01	-0.01***	0.00	-0.00	0.01**	-0.00	-0.00	-0.00	-0.00	-0.01*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.02)	(0.00)
Secondary	0.36**	-0.24***	-0.14	-0.31***	0.03	-0.14**	0.05	-0.27***	-0.00	-0.04	-0.06	0.32	-0.16
	(0.16)	(0.06)	(0.09)	(0.09)	(0.12)	(0.06)	(0.09)	(0.09)	(0.16)	(0.09)	(0.10)	(0.40)	(0.14)
Married	0.34***	-0.11*	0.05	-0.33***	0.29***	-0.12*	0.03	-0.35***	0.22***	0.27***	0.29***	0.06	-0.29***
	(0.07)	(0.07)	(0.09)	(0.11)	(0.07)	(0.07)	(0.09)	(0.12)	(0.07)	(0.10)	(0.10)	(0.41)	(0.07)
Outcome mean	-0.00	-0.00	0.05	-0.05	0.00	0.00	0.12	-0.12	-0.00	-0.00	0.03	-0.19	0.00
Observations	956	1,416	711	705	956	1,416	711	705	956	573	492	81	956

Notes: This table presents OLS regressions where the dependent variable are psychological well-being measures. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C.1.3 PCA Index

Table C9: Goal-Setting Capacity and Mental Health: Regression Analysis (PCA-index)

	Life satisfaction											
	Current life						Expected life			Time use		
	10-step			5-step			10-step			3-step		
	All	F	M	All	F	M	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Tanzania × Goal-setting	0.12***	0.13***	0.08*				0.18***	0.21***	0.07			
	(0.02)	(0.03)	(0.05)				(0.02)	(0.03)	(0.05)			
Malawi LSMS × Goal-setting				0.05*	0.08	0.03				0.07**	0.13**	0.05
				(0.03)	(0.05)	(0.03)				(0.03)	(0.05)	(0.04)
Female	0.07			0.07			0.06			0.23***		
	(0.06)			(0.05)			(0.06)			(0.05)		
Age	-0.00	0.00	-0.00	-0.00	-0.00	0.01	-0.01***	-0.01***	-0.01***	0.00	-0.00	0.01**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Secondary	0.64***	0.67***	0.59***	-0.23***	-0.14	-0.27***	0.58***	0.57***	0.60***	-0.13**	0.04	-0.24***
	(0.08)	(0.10)	(0.12)	(0.06)	(0.09)	(0.09)	(0.07)	(0.09)	(0.11)	(0.06)	(0.09)	(0.08)
Married	0.29***	0.32***	0.22**	-0.11	0.05	-0.33***	0.17***	0.19***	0.11	-0.11*	0.02	-0.34***
	(0.06)	(0.07)	(0.10)	(0.06)	(0.09)	(0.11)	(0.06)	(0.07)	(0.11)	(0.07)	(0.09)	(0.12)
Outcome mean	-0.00	-0.00	-0.00	-0.00	0.05	-0.05	-0.00	0.00	-0.01	0.00	0.12	-0.12
Observations	1,416	1,024	392	1,424	713	711	1,416	1,024	392	1,424	713	711

Notes: This table presents OLS regressions where the dependent variable are psychological well-being measures. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C10: Agricultural Self-Efficacy and Mental Health: Regression Analysis (PCA-index)

	Life satisfaction											
	Current life						Expected life			Time use		
	10-step			5-step			10-step			3-step		
	All	F	M	All	F	M	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Tanzania × Agricultural self-efficacy	0.12***	0.12***	0.12**				0.17***	0.20***	0.09*			
	(0.03)	(0.03)	(0.05)				(0.03)	(0.03)	(0.05)			
Malawi LSMS × Agricultural self-efficacy				0.05*	0.12***	0.01				0.04	0.08**	0.01
				(0.03)	(0.04)	(0.04)				(0.03)	(0.04)	(0.04)
Female	0.08			0.06			0.07			0.23***		
	(0.06)			(0.05)			(0.06)			(0.05)		
Age	-0.00	0.00	-0.00	-0.00	-0.00	0.01	-0.01***	-0.01***	-0.01***	0.00	-0.00	0.01**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Secondary	0.64***	0.66***	0.61***	-0.23***	-0.17*	-0.26***	0.59***	0.56***	0.62***	-0.13**	0.03	-0.23***
	(0.08)	(0.10)	(0.12)	(0.06)	(0.09)	(0.09)	(0.07)	(0.08)	(0.11)	(0.06)	(0.09)	(0.09)
Married	0.28***	0.31***	0.19*	-0.12*	0.02	-0.33***	0.16***	0.18***	0.09	-0.12*	0.01	-0.33***
	(0.06)	(0.07)	(0.10)	(0.07)	(0.09)	(0.11)	(0.06)	(0.07)	(0.11)	(0.07)	(0.09)	(0.12)
Outcome mean	-0.00	-0.00	-0.00	-0.00	0.05	-0.05	-0.00	0.00	-0.01	0.00	0.12	-0.12
Observations	1,416	1,024	392	1,424	713	711	1,416	1,024	392	1,424	713	711

Notes: This table presents OLS regressions where the dependent variable are psychological well-being measures. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C11: Generalized Livelihooods Self-Efficacy and Mental Health: Regression Analysis (PCA-index)

	Life satisfaction					
	Current life (10-step)			**Expected life** (10-step)		
	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)
Kenya KYEOP × Generalized livelihoods self-efficacy	0.10***	0.10**	0.09***	0.13**	0.13**	0.14***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Tanzania × Generalized livelihoods self-efficacy	0.14***	0.15***	0.19*	0.20**	0.18***	0.19**
	(0.00)	(0.00)	(0.02)	(0.00)	(0.00)	(0.01)
Female	-0.01			0.20*		
	(0.02)			(0.02)		
Age	-0.00	-0.00	-0.01	-0.01*	-0.01*	-0.01
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Secondary	0.31	0.32	0.29*	0.21	0.19	0.23
	(0.05)	(0.06)	(0.04)	(0.06)	(0.07)	(0.05)
Married	0.11	0.14	0.05	0.03	0.05	-0.02
	(0.04)	(0.05)	(0.01)	(0.04)	(0.05)	(0.01)
Survey FE	✓	✓	✓	✓	✓	✓
Outcome mean	-0.00	-0.02	0.03	0.00	0.07	-0.10
Observations	10,674	6,588	4,086	10,674	6,588	4,086

Notes: This table presents OLS regressions where the dependent variable are psychological well-being measures. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C12: Locus of Control and Mental Health: Regression Analysis (PCA-index)

	Life satisfaction									**Other mental wellbeing**			
	Current life				**Expected life**	**Time use**				**Happiness**			**Depression**
	10-step	5-step			10-step	3-step			4-step				
	F	All	F	M	F	All	F	M	F	All	F	M	F
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Kampala × Locus of control	0.10***				0.05				0.06*				-0.08**
	(0.03)				(0.03)				(0.03)				(0.03)
Malawi LSMS × Locus of control		0.00	-0.08**	0.08*		-0.02	-0.08**	0.04					
		(0.03)	(0.04)	(0.04)		(0.03)	(0.03)	(0.04)					
CIV × Locus of control										0.11***	0.11**	0.11	
										(0.04)	(0.04)	(0.11)	
Female		0.08				0.23***				0.18			
		(0.05)				(0.05)				(0.13)			
Age	0.01**	0.00	-0.00	0.01	-0.01***	0.00	-0.00	0.01**	-0.00	-0.00	-0.00	-0.01	-0.01*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.02)	(0.00)
Secondary	0.39**	-0.22***	-0.11	-0.30***	0.08	-0.11*	0.09	-0.25***	0.04	-0.04	-0.06	0.27	-0.21
	(0.16)	(0.07)	(0.09)	(0.09)	(0.12)	(0.06)	(0.09)	(0.09)	(0.16)	(0.09)	(0.10)	(0.39)	(0.14)
Married	0.36***	-0.10	0.06	-0.32***	0.32***	-0.11	0.04	-0.33***	0.25***	0.26***	0.29***	0.02	-0.31***
	(0.07)	(0.06)	(0.09)	(0.11)	(0.07)	(0.07)	(0.09)	(0.12)	(0.07)	(0.09)	(0.10)	(0.40)	(0.07)
Outcome mean	-0.00	-0.00	0.05	-0.05	0.00	0.00	0.12	-0.12	-0.00	-0.00	0.03	-0.19	0.00
Observations	956	1,424	713	711	956	1,424	713	711	956	578	493	85	956

Notes: This table presents OLS regressions where the dependent variable are psychological well-being measures. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C.1.4 3- vs. 5-point Response Scale

Table C13: Goal-Setting Capacity and Mental Health: Regression Analysis (5-point)

	Life satisfaction											
	Current life						Expected life			Time use		
	10-step			5-step			10-step			3-step		
	All	F	M	All	F	M	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Tanzania × GSC 5p	0.10***	0.10***	0.08				0.17***	0.20***	0.09			
	(0.03)	(0.04)	(0.08)				(0.03)	(0.04)	(0.07)			
Malawi LSMS × GSC 5p				0.05	0.06	0.05				0.06	0.11*	0.04
				(0.04)	(0.05)	(0.05)				(0.04)	(0.06)	(0.06)
Female	-0.01			0.10			0.07			0.19**		
	(0.08)			(0.08)			(0.08)			(0.08)		
Age	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.01***	-0.01***	-0.01**	-0.00	-0.00	0.01*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)
Secondary	0.67***	0.68***	0.63***	-0.24***	-0.19	-0.26**	0.62***	0.52***	0.80***	-0.11	0.15	-0.29**
	(0.11)	(0.14)	(0.17)	(0.09)	(0.13)	(0.13)	(0.09)	(0.12)	(0.14)	(0.09)	(0.12)	(0.12)
Married	0.25***	0.30***	0.13	-0.03	0.12	-0.19	0.22***	0.22**	0.23*	-0.04	0.20	-0.43**
	(0.08)	(0.09)	(0.14)	(0.10)	(0.14)	(0.18)	(0.07)	(0.09)	(0.13)	(0.10)	(0.13)	(0.17)
Outcome mean	-0.03	-0.05	0.04	-0.01	0.06	-0.09	-0.03	-0.03	-0.02	-0.02	0.08	-0.13
Observations	705	510	195	692	347	345	705	510	195	692	347	345

Notes: This table presents OLS regressions where the dependent variable are psychological well-being measures. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C14: Goal-Setting Capacity and Mental Health: Regression Analysis (3-point)

	Life satisfaction											
	Current life						Expected life			Time use		
	10-step			5-step			10-step			3-step		
	All	F	M	All	F	M	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Tanzania × GSC 3p	0.14***	0.17***	0.07				0.19***	0.23***	0.07			
	(0.03)	(0.04)	(0.05)				(0.03)	(0.04)	(0.06)			
Malawi LSMS × GSC 3p				0.00	0.06	-0.05				0.03	0.09	-0.00
				(0.04)	(0.06)	(0.05)				(0.04)	(0.06)	(0.05)
Female	0.15*			0.05			0.05			0.26***		
	(0.08)			(0.07)			(0.08)			(0.07)		
Age	0.00	0.00	0.00	0.00	-0.00	0.01***	-0.01***	-0.01**	-0.01	0.00	0.00	0.01*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)
Secondary	0.60***	0.64***	0.52***	-0.19**	-0.10	-0.25**	0.54***	0.59***	0.43**	-0.13	-0.06	-0.19
	(0.11)	(0.13)	(0.18)	(0.09)	(0.13)	(0.12)	(0.10)	(0.12)	(0.19)	(0.09)	(0.13)	(0.12)
Married	0.34***	0.33***	0.36**	-0.17*	-0.02	-0.42***	0.12	0.15	-0.00	-0.17*	-0.14	-0.27
	(0.08)	(0.10)	(0.15)	(0.08)	(0.12)	(0.14)	(0.09)	(0.10)	(0.18)	(0.09)	(0.11)	(0.17)
Outcome mean	0.02	0.04	-0.04	0.01	0.04	-0.01	0.02	0.03	0.01	0.02	0.16	-0.11
Observations	711	514	197	732	366	366	711	514	197	732	366	366

Notes: This table presents OLS regressions where the dependent variable are psychological well-being measures. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C15: Agricultural Self-Efficacy and Mental Health: Regression Analysis (5-point)

	Life satisfaction											
	Current life						**Expected life**			**Time use**		
	10-step			5-step			10-step			3-step		
	All	F	M	All	F	M	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Tanzania × AGSE 5p	0.14***	0.11***	0.23***				0.19***	0.21***	0.15**			
	(0.04)	(0.04)	(0.06)				(0.04)	(0.04)	(0.06)			
Malawi LSMS × AGSE 5p				0.03	0.11**	-0.03				0.02	0.09	-0.03
				(0.04)	(0.06)	(0.05)				(0.04)	(0.06)	(0.06)
Female	0.01			0.10			0.09			0.20**		
	(0.08)			(0.08)			(0.08)			(0.08)		
Age	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.01***	-0.01***	-0.01**	-0.00	-0.00	0.01*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)
Secondary	0.68***	0.70***	0.64***	-0.24***	-0.23*	-0.24*	0.64***	0.55***	0.81***	-0.10	0.12	-0.27**
	(0.11)	(0.14)	(0.16)	(0.09)	(0.13)	(0.13)	(0.09)	(0.12)	(0.14)	(0.09)	(0.12)	(0.12)
Married	0.22***	0.29***	0.05	-0.04	0.10	-0.17	0.19**	0.19**	0.18	-0.04	0.19	-0.40**
	(0.07)	(0.09)	(0.14)	(0.10)	(0.13)	(0.18)	(0.08)	(0.09)	(0.14)	(0.10)	(0.14)	(0.18)
Outcome mean	-0.03	-0.05	0.04	-0.01	0.06	-0.09	-0.03	-0.03	-0.02	-0.02	0.08	-0.13
Observations	705	510	195	692	347	345	705	510	195	692	347	345

Notes: This table presents OLS regressions where the dependent variable are psychological well-being measures. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C16: Agricultural Self-Efficacy and Mental Health: Regression Analysis (3-point)

	Life satisfaction											
	Current life						**Expected life**			**Time use**		
	10-step			5-step			10-step			3-step		
	All	F	M	All	F	M	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Tanzania × AGSE 3p	0.10***	0.13***	0.03				0.13***	0.17***	0.02			
	(0.04)	(0.04)	(0.07)				(0.04)	(0.04)	(0.08)			
Malawi LSMS × AGSE 3p				0.08**	0.13**	0.04				0.05	0.06	0.04
				(0.04)	(0.05)	(0.05)				(0.04)	(0.05)	(0.05)
Female	0.16*			0.03			0.05			0.26***		
	(0.08)			(0.07)			(0.08)			(0.07)		
Age	0.00	0.00	0.00	0.00	-0.00	0.01**	-0.01***	-0.01***	-0.01	0.00	0.00	0.01
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)
Secondary	0.60***	0.62***	0.53***	-0.20**	-0.13	-0.25**	0.54***	0.57***	0.44**	-0.14	-0.08	-0.19
	(0.11)	(0.13)	(0.18)	(0.09)	(0.13)	(0.12)	(0.10)	(0.12)	(0.19)	(0.09)	(0.13)	(0.12)
Married	0.34***	0.34***	0.36**	-0.18**	-0.04	-0.43***	0.13	0.16	0.00	-0.18**	-0.15	-0.27*
	(0.08)	(0.10)	(0.14)	(0.08)	(0.12)	(0.14)	(0.09)	(0.10)	(0.18)	(0.09)	(0.11)	(0.17)
Outcome mean	0.02	0.04	-0.04	0.01	0.04	-0.01	0.02	0.03	0.01	0.02	0.16	-0.11
Observations	711	514	197	732	366	366	711	514	197	732	366	366

Notes: This table presents OLS regressions where the dependent variable are psychological well-being measures. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C17: Generalized Livelihooods Self-Efficacy and Mental Health: Regression Analysis (5-point)

	Life satisfaction					
	Current life (10-step)			**Expected life** (10-step)		
	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)
Kenya KYEOP × GLSE 5p	0.13***	0.11**	0.17***	0.18**	0.14**	0.26***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Tanzania × GLSE 5p	0.13***	0.11***	0.26**	0.20***	0.19**	0.24**
	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.01)
Female	-0.05			0.19*		
	(0.01)			(0.02)		
Age	-0.01	-0.01	-0.01	-0.02	-0.02	-0.01*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Secondary	0.30	0.31	0.28*	0.18	0.16	0.19
	(0.06)	(0.07)	(0.04)	(0.08)	(0.08)	(0.08)
Married	0.10	0.10	0.10*	-0.00	0.00	-0.01
	(0.03)	(0.06)	(0.01)	(0.05)	(0.06)	(0.03)
Survey FE	✓	✓	✓	✓	✓	✓
Outcome mean	0.01	-0.03	0.06	0.01	0.07	-0.09
Observations	5,307	3,262	2,045	5,307	3,262	2,045

Notes: This table presents OLS regressions where the dependent variable are psychological well-being measures. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C18: Generalized Livelihooods Self-Efficacy and Mental Health: Regression Analysis (3-point)

	Life satisfaction					
	Current life (10-step)			**Expected life** (10-step)		
	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)
Kenya KYEOP × GLSE 3p	0.15***	0.16**	0.13**	0.15**	0.17**	0.13***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Tanzania × GLSE 3p	0.16***	0.19**	0.10	0.18**	0.18**	0.13
	(0.00)	(0.00)	(0.02)	(0.01)	(0.01)	(0.03)
Female	0.04			0.21*		
	(0.03)			(0.02)		
Age	-0.00	-0.00*	-0.00	-0.01**	-0.01	-0.01
	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.01)
Secondary	0.29*	0.31	0.27*	0.22	0.20	0.25*
	(0.05)	(0.05)	(0.04)	(0.05)	(0.07)	(0.02)
Married	0.10	0.17	-0.00	0.05	0.09	-0.03
	(0.05)	(0.05)	(0.04)	(0.03)	(0.03)	(0.01)
Survey FE	✓	✓	✓	✓	✓	✓
Outcome mean	-0.01	-0.01	-0.01	-0.00	0.06	-0.11
Observations	5,417	3,350	2,067	5,417	3,350	2,067

Notes: This table presents OLS regressions where the dependent variable are psychological well-being measures. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C19: Locus of Control and Mental Health: Regression Analysis (5-point)

	Life satisfaction									Other mental wellbeing			
	Current life				Expected life	Time use				Happiness			Depression
	10-step	5-step			10-step	3-step			4-step				
	F	All	F	M	F	All	F	M	F	All	F	M	F
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Kampala × S-LOC 5p	0.16***				0.17***				0.18***				-0.17***
	(0.05)				(0.04)				(0.05)				(0.04)
Malawi LSMS × S-LOC 5p		0.04	-0.04	0.11*		0.07*	0.02	0.11*					
		(0.04)	(0.05)	(0.06)		(0.04)	(0.05)	(0.06)					
CIV × S-LOC 5p										0.09	0.10	0.01	
										(0.06)	(0.07)	(0.20)	
Female		0.11				0.20**				-0.02			
		(0.08)				(0.08)				(0.18)			
Age	0.00	-0.00	-0.00	-0.00	-0.02***	0.00	-0.00	0.01**	0.00	-0.00	-0.00	-0.02	-0.01
	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.01)	(0.01)	(0.03)	(0.00)
Secondary	-0.15	-0.25***	-0.18	-0.29**	-0.28*	-0.13	0.14	-0.32***	0.01	-0.01	-0.00	-1.01*	0.14
	(0.17)	(0.09)	(0.13)	(0.13)	(0.16)	(0.09)	(0.12)	(0.12)	(0.24)	(0.13)	(0.13)	(0.51)	(0.21)
Married	0.28***	-0.04	0.14	-0.19	0.12	-0.05	0.21	-0.43**	0.05	0.40***	0.44***	-0.14	-0.11
	(0.09)	(0.10)	(0.14)	(0.18)	(0.09)	(0.10)	(0.13)	(0.17)	(0.10)	(0.13)	(0.13)	(0.55)	(0.09)
Outcome mean	0.01	-0.01	0.06	-0.09	0.03	-0.02	0.08	-0.13	0.03	-0.04	-0.04	-0.10	-0.04
Observations	477	692	347	345	477	692	347	345	477	302	261	41	477

Notes: This table presents OLS regressions where the dependent variable are psychological well-being measures. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C20: Locus of Control and Mental Health: Regression Analysis (3-point)

	Life satisfaction									Other mental wellbeing			
	Current life				Expected life	Time use				Happiness			Depression
	10-step	5-step			10-step	3-step			4-step				
	F	All	F	M	F	All	F	M	F	All	F	M	F
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Kampala × S-LOC 3p	0.07				0.18***				0.11**				-0.13***
	(0.04)				(0.05)				(0.04)				(0.05)
Malawi LSMS × S-LOC 3p		0.08**	0.07	0.09*		0.04	-0.01	0.09					
		(0.03)	(0.05)	(0.05)		(0.04)	(0.05)	(0.06)					
CIV × S-LOC 3p										0.09	0.12*	-0.03	
										(0.06)	(0.06)	(0.14)	
Female		0.06				0.28***				0.38**			
		(0.07)				(0.07)				(0.18)			
Age	0.01***	0.00	0.00	0.01**	-0.00	0.01*	0.00	0.01*	-0.00	-0.00	-0.00	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)	(0.01)	(0.01)	(0.03)	(0.00)
Secondary	0.80***	-0.23**	-0.12	-0.30**	0.30*	-0.15*	-0.06	-0.24*	-0.03	-0.08	-0.12	0.42	-0.41**
	(0.23)	(0.09)	(0.13)	(0.12)	(0.17)	(0.09)	(0.13)	(0.13)	(0.23)	(0.13)	(0.14)	(0.47)	(0.18)
Married	0.40***	-0.18**	-0.02	-0.43***	0.43***	-0.18**	-0.13	-0.28*	0.39***	0.10	0.09	0.14	-0.44***
	(0.10)	(0.08)	(0.12)	(0.14)	(0.10)	(0.09)	(0.11)	(0.17)	(0.09)	(0.14)	(0.14)	(0.65)	(0.10)
Outcome mean	-0.01	0.01	0.04	-0.01	-0.03	0.02	0.16	-0.11	-0.03	0.04	0.10	-0.29	0.04
Observations	479	732	366	366	479	732	366	366	479	276	232	44	479

Notes: This table presents OLS regressions where the dependent variable are psychological well-being measures. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C.2 Economic Achievement

Table C21: Generalized Livelihooods Self-Efficacy and Business Profits (w5%): Regression Analysis

	Kenya		
	All	F	M
	(1)	(2)	(3)
Generalized Livelihoods SE (GLSE)	6.86***	5.89***	9.08***
	(0.00)	(0.00)	(0.00)
Female	-11.02***		
	(0.00)		
Age	0.64***	0.51***	0.73***
	(0.00)	(0.00)	(0.00)
Secondary	4.47***	4.27***	4.97***
	(0.00)	(0.00)	(0.00)
Married	5.92***	3.54***	9.50***
	(0.00)	(0.00)	(0.00)
Outcome mean	25.39	20.51	32.70
Observations	9,204	5,516	3,688

Notes: This table presents OLS regressions where the dependent variable is business profits (winsorized at both tails at 5%) among business owners. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C.2.1 Excluding Acquiescent Respondents

Table C22: Agency and Economic Achievement: Regression Results (Exc. Acquiescent Respondents)

	Labor supply														
	Extensive margin			Intensive margin			Weekly earnings (USD)			Has business?			Food insecurity		
	All	F	M	All	F	M	All	F	M	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
A. GSC															
Kenya IDRC	0.04***	0.04***		1.86***	1.94***		0.70	1.01		0.01	0.01				
	(0.00)	(0.00)		(0.11)	(0.08)		(0.53)	(0.49)		(0.00)	(0.00)				
Malawi LSMS	0.02*	0.03	0.01	0.30	1.70**	–0.79	–0.20	–0.79	–0.45*	0.00	0.01	–0.01	0.05	0.11	0.00
	(0.00)	(0.01)	(0.01)	(0.29)	(0.34)	(0.42)	(0.18)	(0.41)	(0.06)	(0.00)	(0.00)	(0.01)	(0.01)	(0.02)	(0.01)
Tanzania	0.05**	0.07**	0.01*	2.29**	2.27**	3.02*	8.12**	3.80	14.19**				–0.13**	–0.09	–0.19***
	(0.01)	(0.01)	(0.00)	(0.27)	(0.31)	(0.27)	(1.40)	(1.34)	(0.86)				(0.01)	(0.02)	(0.00)
B. AGSE															
Malawi LSMS	0.00	0.01	–0.01	0.96	2.13*	0.07	–0.15	–0.03	–0.46*	–0.00	–0.01	–0.00	–0.03	–0.02	–0.05
	(0.01)	(0.01)	(0.02)	(0.64)	(0.31)	(0.99)	(0.74)	(1.99)	(0.05)	(0.01)	(0.02)	(0.01)	(0.02)	(0.01)	(0.02)
Tanzania	0.02	0.04*	–0.02	1.73	2.25**	0.98	6.31	6.77	3.72***				–0.13**	–0.10	–0.14**
	(0.01)	(0.00)	(0.02)	(0.34)	(0.16)	(0.83)	(1.07)	(2.00)	(0.01)				(0.00)	(0.02)	(0.01)
C. GLSE															
Kenya IDRC	0.05***	0.05***		1.94***	1.88***		0.62	0.60		0.02*	0.02				
	(0.00)	(0.00)		(0.09)	(0.10)		(0.24)	(0.30)		(0.00)	(0.00)				
Kenya KYEOP	0.05***	0.06***	0.02**	2.28***	2.81***	0.97***	10.00***	9.12***	11.92***	0.09***	0.09***	0.11***			
	(0.00)	(0.00)	(0.00)	(0.07)	(0.05)	(0.01)	(0.16)	(0.29)	(0.10)	(0.00)	(0.00)	(0.01)			
Tanzania	0.09***	0.11***	0.04	3.73***	4.03***	4.28*	12.80***	8.11**	21.83**				–0.17***	–0.14***	–0.32***
	(0.00)	(0.00)	(0.01)	(0.10)	(0.16)	(0.35)	(0.71)	(0.82)	(0.87)				(0.04)	(0.05)	(0.10)
D. S-LOC															
Uganda (Kampala)	0.03***	0.04***					0.61	0.83**		–0.00	–0.00				
	(0.00)	(0.00)					(0.27)	(0.18)		(0.00)	(0.00)				
CIV	–0.03***	–0.03***	–0.03**	–1.88*	–1.09**	–2.74**	–3.74***	–2.99***	–3.23**						
	(0.00)	(0.00)	(0.00)	(0.15)	(0.06)	(0.05)	(0.29)	(0.11)	(0.13)						
Malawi LSMS	0.00	0.01***	–0.00	0.12	0.21**	–0.04	3.03**	1.62***	3.67***	0.01**	–0.00	0.02	–0.18***	–0.13***	–0.23***
	(0.00)	(0.00)	(0.00)	(0.23)	(0.02)	(0.01)	(0.32)	(0.11)	(0.00)	(0.00)	(0.00)	(0.02)	(0.02)	(0.04)	(0.03)

Notes: This table presents OLS regressions where the dependent variable are measures of economic achievement. The coefficient displayed corresponds to each of the psychological construct scales by survey implementation. Extensive margin is an indicator variable equal to one if working for pay. Intensive margin is a measure of weekly working hours, equal to zero if the respondent is not working. Weekly earnings are expressed in international USD dollars. Business ownership is an indicator variable equal to one if the respondent owns or runs a business. Food insecurity is standardized index based on the FIES scale. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. All regressions control for demographic controls: gender, age, education, and marital status. In specifications (defined at the outcome-scale level) where there is more than one survey available, the regression includes survey fixed effects. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C.2.2 PCA Index

Table C23: Agency and Economic Achievement: Regression Results (PCA-Index)

	Labor supply														
	Extensive margin			Intensive margin			Weekly earnings (USD)			Has business?			Food insecurity		
	All	F	M	All	F	M	All	F	M	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
A. GSC															
Kenya IDRC	0.04***	0.04***		1.83***	1.91***		0.70	0.99		0.01*	0.01				
	(0.00)	(0.00)		(0.11)	(0.07)		(0.49)	(0.45)		(0.00)	(0.00)				
Malawi LSMS	0.02**	0.02*	0.01	0.63	1.66**	–0.27	0.87	–0.37	0.83	0.01**	0.00	0.01	0.03	0.06	0.00
	(0.00)	(0.01)	(0.00)	(0.28)	(0.24)	(0.36)	(0.35)	(0.31)	(0.35)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.00)
Tanzania	0.05**	0.07**	0.02***	2.41**	2.47**	3.01**	7.68**	3.57	13.64**				–0.13**	–0.10	–0.17***
	(0.01)	(0.01)	(0.00)	(0.27)	(0.31)	(0.19)	(1.35)	(1.30)	(0.89)				(0.01)	(0.02)	(0.00)
B. AGSE															
Malawi LSMS	–0.00	0.01	–0.01	0.87	2.20*	–0.05	–0.17	–0.09	–0.48*	–0.01	–0.01	–0.00	–0.03	–0.02	–0.04
	(0.01)	(0.01)	(0.02)	(0.64)	(0.34)	(0.97)	(0.70)	(2.04)	(0.06)	(0.01)	(0.02)	(0.01)	(0.02)	(0.01)	(0.02)
Tanzania	0.02	0.04*	–0.02	1.71	2.24**	0.95	6.21	6.65	3.63***				–0.13**	–0.10	–0.14**
	(0.01)	(0.00)	(0.02)	(0.34)	(0.16)	(0.84)	(1.07)	(1.98)	(0.01)				(0.00)	(0.02)	(0.01)
C. GLSE															
Kenya IDRC	0.04***	0.04***		1.69***	1.60***		0.25	0.17		0.01	0.01				
	(0.00)	(0.00)		(0.09)	(0.12)		(0.29)	(0.37)		(0.00)	(0.00)				
Kenya KYEOP	0.04***	0.05***	0.02**	2.20***	2.38***	1.68**	8.61***	7.60***	10.79***	0.08***	0.08***	0.08***			
	(0.00)	(0.00)	(0.00)	(0.06)	(0.06)	(0.03)	(0.14)	(0.26)	(0.09)	(0.00)	(0.00)	(0.01)			
Tanzania	0.09***	0.11***	0.03	3.65***	3.93***	4.36*	12.20***	7.66**	21.64**				–0.18***	–0.14***	–0.34***
	(0.00)	(0.00)	(0.02)	(0.10)	(0.15)	(0.37)	(0.71)	(0.78)	(1.18)				(0.04)	(0.05)	(0.10)
D. S-LOC															
Uganda (Kampala)	–0.01**	–0.01***					1.74***	1.88***		–0.01**	–0.01*				
	(0.00)	(0.00)					(0.16)	(0.14)		(0.00)	(0.00)				
CIV	–0.04***	–0.03***	–0.05**	–2.14**	–1.45**	–3.56**	–4.08***	–3.18***	–5.19**						
	(0.00)	(0.00)	(0.00)	(0.16)	(0.05)	(0.15)	(0.27)	(0.15)	(0.25)						
Malawi LSMS	0.01	0.02***	–0.02	0.63	0.74	0.39	2.93**	2.29***	2.91*	0.01	0.01	0.01	–0.18***	–0.15***	–0.21***
	(0.00)	(0.00)	(0.00)	(0.19)	(0.19)	(0.18)	(0.38)	(0.05)	(0.27)	(0.00)	(0.00)	(0.02)	(0.03)	(0.04)	(0.04)

Notes: This table presents OLS regressions where the dependent variable are measures of economic achievement. The coefficient displayed corresponds to each of the psychological construct scales by survey implementation. Extensive margin is an indicator variable equal to one if working for pay. Intensive margin is a measure of weekly working hours, equal to zero if the respondent is not working. Weekly earnings are expressed in international USD dollars. Business ownership is an indicator variable equal to one if the respondent owns or runs a business. Food insecurity is standardized index based on the FIES scale. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. All regressions control for demographic controls: gender, age, education, and marital status. In specifications (defined at the outcome-scale level) where there is more than one survey available, the regression includes survey fixed effects. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C.2.3 3- vs. 5-point Response Scale

Table C24: Agency and Economic Achievement: Regression Results (5-point)

	Labor supply														
	Extensive margin			Intensive margin			Weekly earnings (USD)			Has business?			Food insecurity		
	All	F	M	All	F	M	All	F	M	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
A. GSC															
Kenya IDRC	0.04***	0.04***		1.55***	1.57***		0.74*	0.89*		0.01**	0.01				
	(0.00)	(0.00)		(0.06)	(0.06)		(0.24)	(0.21)		(0.00)	(0.00)				
Malawi LSMS	0.03**	0.05**	0.01	0.97*	2.43***	–0.31	0.52	–0.18	0.02	0.01**	0.00	0.00	0.02	0.09	–0.03
	(0.00)	(0.01)	(0.00)	(0.28)	(0.24)	(0.19)	(0.36)	(0.10)	(0.69)	(0.00)	(0.00)	(0.02)	(0.03)	(0.06)	(0.04)
Tanzania	0.04**	0.05**	–0.01	1.76**	1.31**	4.27*	5.93**	0.86	13.61*						
	(0.00)	(0.01)	(0.01)	(0.21)	(0.18)	(0.43)	(1.25)	(0.75)	(1.61)						
B. AGSE															
Malawi LSMS	0.00	–0.02*	0.02	1.63	1.87*	1.05	–0.86	0.36	–2.23	–0.01	–0.03	–0.00	–0.07*	–0.02	–0.12***
	(0.01)	(0.00)	(0.02)	(0.66)	(0.25)	(0.94)	(1.12)	(1.62)	(1.10)	(0.02)	(0.03)	(0.02)	(0.04)	(0.06)	(0.05)
Tanzania	0.02	0.02**	–0.01	0.58	0.65**	0.40	6.32*	5.60	5.07*						
	(0.00)	(0.00)	(0.03)	(0.33)	(0.05)	(1.17)	(0.66)	(0.97)	(0.53)						
C. GLSE															
Kenya IDRC	0.04***	0.04***		1.59***	1.56***		0.39	0.52		0.02*	0.02				
	(0.00)	(0.00)		(0.07)	(0.09)		(0.22)	(0.29)		(0.00)	(0.00)				
Kenya KYEOP	0.05***	0.05***	0.03***	2.34***	2.73***	1.05**	9.64***	8.93***	11.55***	0.10***	0.08***	0.14***			
	(0.00)	(0.00)	(0.00)	(0.04)	(0.05)	(0.03)	(0.20)	(0.37)	(0.05)	(0.00)	(0.00)	(0.01)			
Tanzania	0.08***	0.09***	0.04	3.36***	3.36***	4.34*	14.02***	4.96**	24.43***						
	(0.00)	(0.00)	(0.01)	(0.11)	(0.14)	(0.44)	(0.84)	(0.58)	(0.22)						
D. S-LOC															
Uganda (Kampala)	0.04***	0.04***					2.86***	3.00***		0.01**	0.00				
	(0.00)	(0.00)					(0.10)	(0.03)		(0.00)	(0.00)				
CIV	–0.02**	–0.00	–0.06***	–1.35**	–0.59	–3.67**	–3.36***	–1.85***	–8.21***						
	(0.00)	(0.01)	(0.00)	(0.03)	(0.15)	(0.07)	(0.21)	(0.15)	(0.02)						
Malawi LSMS	0.01	0.04***	–0.02***	–0.57*	–0.52*	–0.46**	3.07***	2.31***	3.48***	0.01*	0.02**	0.00	–0.20***	–0.15***	–0.22***
	(0.00)	(0.00)	(0.00)	(0.09)	(0.04)	(0.01)	(0.13)	(0.03)	(0.03)	(0.00)	(0.00)	(0.02)	(0.03)	(0.05)	(0.04)

Notes: This table presents OLS regressions where the dependent variable are measures of economic achievement. The coefficient displayed corresponds to each of the psychological construct scales by survey implementation. Extensive margin is an indicator variable equal to one if working for pay. Intensive margin is a measure of weekly working hours, equal to zero if the respondent is not working. Weekly earnings are expressed in international USD dollars. Business ownership is an indicator variable equal to one if the respondent owns or runs a business. Food insecurity is standardized index based on the FIES scale. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. All regressions control for demographic controls: gender, age, education, and marital status. In specifications (defined at the outcome-scale level) where there is more than one survey available, the regression includes survey fixed effects. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C25: Agency and Economic Achievement: Regression Results (3-point)

	Labor supply														
	Extensive margin			Intensive margin			Weekly earnings (USD)			Has business?			Food insecurity		
	All	F	M	All	F	M	All	F	M	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
A. GSC															
Kenya IDRC	0.05***	0.05***		2.27***	2.42***		0.70	1.16		0.01	0.01				
	(0.00)	(0.00)		(0.20)	(0.06)		(0.83)	(0.81)		(0.00)	(0.00)				
Malawi LSMS	–0.00	0.00	0.01	–0.58	0.77	–1.48	–1.13*	–1.56	–0.87	–0.01	0.02	–0.02	0.08	0.12	0.05
	(0.01)	(0.01)	(0.01)	(0.37)	(0.49)	(0.53)	(0.37)	(0.80)	(0.80)	(0.00)	(0.00)	(0.02)	(0.02)	(0.03)	(0.02)
Tanzania	0.06**	0.09**	0.02***	2.84**	3.48**	2.22*	10.64**	7.74*	15.65**				–0.14**	–0.10*	–0.18**
	(0.01)	(0.01)	(0.00)	(0.33)	(0.49)	(0.23)	(1.45)	(2.06)	(0.43)				(0.00)	(0.01)	(0.00)
B. AGSE															
Malawi LSMS	–0.00	0.05*	–0.03	0.24	2.34*	–1.06	0.69	–0.55	1.50	0.00	0.01	–0.00	–0.00	–0.02	0.01
	(0.01)	(0.01)	(0.02)	(0.59)	(0.29)	(0.86)	(0.25)	(2.51)	(0.86)	(0.02)	(0.03)	(0.02)	(0.02)	(0.02)	(0.02)
Tanzania	0.02	0.06***	–0.03*	3.15	4.25**	2.09	5.59	6.90	2.26				–0.13***	–0.11	–0.13**
	(0.01)	(0.00)	(0.00)	(0.50)	(0.17)	(0.38)	(1.82)	(3.18)	(1.04)				(0.00)	(0.02)	(0.01)
C. GLSE															
Kenya IDRC	0.06***	0.06***		2.33***	2.26***		0.89*	0.73		0.01	0.01				
	(0.00)	(0.00)		(0.11)	(0.13)		(0.24)	(0.29)		(0.00)	(0.00)				
Kenya KYEOP	0.04***	0.06***	0.01**	2.22***	2.87***	0.93**	10.32***	9.28***	12.36***	0.09***	0.09***	0.08***			
	(0.00)	(0.00)	(0.00)	(0.08)	(0.06)	(0.04)	(0.18)	(0.28)	(0.06)	(0.00)	(0.00)	(0.01)			
Tanzania	0.10***	0.13***	0.05	4.11***	4.76***	4.37**	11.77***	10.47**	20.30**				–0.17***	–0.14***	–0.32***
	(0.00)	(0.00)	(0.02)	(0.16)	(0.19)	(0.32)	(0.74)	(1.11)	(1.21)				(0.04)	(0.05)	(0.10)
D. S-LOC															
Uganda (Kampala)	0.03***	0.03**					–2.00**	–1.63*		–0.01*	–0.01***				
	(0.00)	(0.00)					(0.46)	(0.43)		(0.00)	(0.00)				
CIV	–0.05***	–0.05***	0.02**	–2.67*	–2.17**	–1.31**	–4.23***	–4.65***	3.53**						
	(0.00)	(0.00)	(0.00)	(0.26)	(0.04)	(0.08)	(0.40)	(0.11)	(0.17)						
Malawi LSMS	0.00	–0.02***	0.02**	0.91	0.77***	0.52**	3.03**	0.88**	3.94**	0.01	–0.02**	0.05**	–0.17***	–0.11**	–0.23***
	(0.01)	(0.00)	(0.00)	(0.44)	(0.01)	(0.03)	(0.67)	(0.17)	(0.20)	(0.00)	(0.00)	(0.02)	(0.04)	(0.05)	(0.05)

Notes: This table presents OLS regressions where the dependent variable are measures of economic achievement. The coefficient displayed corresponds to each of the psychological construct scales by survey implementation. Extensive margin is an indicator variable equal to one if working for pay. Intensive margin is a measure of weekly working hours, equal to zero if the respondent is not working. Weekly earnings are expressed in international USD dollars. Business ownership is an indicator variable equal to one if the respondent owns or runs a business. Food insecurity is standardized index based on the FIES scale. Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. All regressions control for demographic controls: gender, age, education, and marital status. In specifications (defined at the outcome-scale level) where there is more than one survey available, the regression includes survey fixed effects. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C.3 Empowerment Outcomes

Table C26: Goal-Setting Capacity and Intra-Household Decisionmaking: Regression Analysis

	All			Married		
	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)
Kenya IDRC × **Goal-setting (GSC)**	0.09**	0.09**		0.10*	0.09	
	(0.00)	(0.00)		(0.01)	(0.01)	
Tanzania × **Goal-setting (GSC)**	0.14***	0.16***	0.07**	0.17**	0.21**	0.05
	(0.00)	(0.00)	(0.03)	(0.00)	(0.01)	(0.03)
Female	-0.76**			-1.04***		
	(0.04)			(0.01)		
Age	0.02	0.03	0.00	0.01**	0.01*	0.00
	(0.01)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)
Secondary	-0.01	-0.01	0.04	0.15	0.18	0.03
	(0.09)	(0.09)	(0.07)	(0.10)	(0.15)	(0.07)
Married	0.16	0.17	0.19***			
	(0.45)	(0.48)	(0.07)			
Survey FE	✓	✓		✓	✓	
Outcome mean	-0.00	-0.09	0.62	0.07	-0.08	0.67
Observations	3,077	2,685	392	1,446	1,159	287

Notes: This table presents OLS regressions where the dependent variable is the intrahousehold decisionmaking index (in standard deviations). Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C27: Agricultural Self-Efficacy and Intra-Household Decisionmaking: Regression Analysis

	All			Married		
	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)
Tanzania × **Agricultural SE (AGSE)**	0.14***	0.16***	0.06**	0.15***	0.18***	0.04*
	(0.02)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)
Female	-0.78***			-1.01***		
	(0.04)			(0.05)		
Age	0.01***	0.02***	0.00	0.01***	0.01***	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Secondary	0.18***	0.23***	0.05	0.24***	0.34***	0.04
	(0.06)	(0.08)	(0.07)	(0.07)	(0.10)	(0.07)
Married	-0.38***	-0.55***	0.18**			
	(0.05)	(0.07)	(0.07)			
Outcome mean	-0.00	-0.24	0.62	-0.13	-0.45	0.67
Observations	1,416	1,024	392	988	701	287

Notes: This table presents OLS regressions where the dependent variable is the intrahousehold decisionmaking index (in standard deviations). Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C28: Generalized Livelihoods Self-Efficacy and Intra-Household Decisionmaking: Regression Analysis

	Intra-Household Decisionmaking						IPV(Female)		
	All	All		Married			All		
	All	F	M	All	F	M	Any IPV	Emotional IPV	Physical IPV
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Kenya IDRC × **Generalized Livelihoods SE (GLSE)**	0.12***	0.12***		0.09***	0.09***				
	(0.00)	(0.01)		(0.00)	(0.00)				
Kenya KYEOP × **Generalized Livelihoods SE (GLSE)**	0.27***	0.28***	0.14***	0.27***	0.27***	0.01	-0.03***	-0.02***	-0.02**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)
Tanzania × **Generalized Livelihoods SE (GLSE)**	0.23***	0.23***	0.11**	0.22***	0.23***	0.09***			
	(0.02)	(0.01)	(0.00)	(0.01)	(0.00)	(0.00)			
Female	-0.62**			-0.89**					
	(0.10)			(0.10)					
Age	0.02*	0.03*	0.00*	0.01***	0.01*	0.00	0.01**	0.01**	0.00
	(0.01)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Secondary	0.04	0.04	0.02	0.09*	0.10	0.02	-0.07***	-0.04**	-0.07***
	(0.04)	(0.04)	(0.02)	(0.03)	(0.04)	(0.02)	(0.02)	(0.02)	(0.01)
Married	0.07	0.06	0.17*				-0.49***	-0.49***	-0.45***
	(0.12)	(0.13)	(0.03)				(0.03)	(0.03)	(0.03)
Survey FE	✓	✓	✓	✓	✓	✓			
Outcome mean	-0.00	-0.03	0.59	0.04	-0.01	0.66	0.31	0.25	0.20
Observations	8,623	8,201	422	4,335	4,034	301	2,880	2,880	2,880

Notes: This table presents OLS regressions where the dependent variable is the intrahousehold decisionmaking index (in standard deviations). Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C29: Locus of Control and Intra-Household Decisionmaking: Regression Analysis

	All F (1)	Married F (2)
CIV × **Locus of control (S-LOC)**	0.05* (0.00)	0.03* (0.00)
Kampala × **Locus of control (S-LOC)**	-0.00 (0.01)	0.02** (0.00)
Female		
Age	-0.01 (0.01)	0.00 (0.01)
Secondary	0.21 (0.04)	0.28 (0.05)
Married	0.59*** (0.00)	
Survey FE	✓	✓
Outcome mean	0.01	0.31
Observations	1,449	741

Notes: This table presents OLS regressions where the dependent variable is the intrahousehold decisionmaking index (in standard deviations). Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C.3.1 Excluding Acquiescent Respondents

Table C30: Goal-Setting Capacity and Intra-Household Decisionmaking: Regression Analysis (Exc. Acquiescent Respondents)

	All			Married		
	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)
Kenya IDRC × **Goal-setting (GSC)**	0.10**	0.10**		0.08**	0.08*	
	(0.00)	(0.01)		(0.00)	(0.01)	
Tanzania × **Goal-setting (GSC)**	0.13**	0.15**	0.03	0.18***	0.22***	0.04
	(0.00)	(0.01)	(0.04)	(0.00)	(0.00)	(0.04)
Female	-0.78**			-1.14***		
	(0.02)			(0.00)		
Age	0.02	0.02	0.00	0.01*	0.01**	-0.00
	(0.01)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)
Secondary	-0.03	-0.04	-0.05	0.29	0.33	-0.01
	(0.08)	(0.06)	(0.14)	(0.05)	(0.12)	(0.11)
Married	0.04	0.02	0.33***			
	(0.47)	(0.57)	(0.12)			
Survey FE	✓	✓		✓	✓	
Outcome mean	-0.10	-0.20	0.53	-0.11	-0.28	0.64
Observations	1,244	1,076	168	608	496	112

Notes: This table presents OLS regressions where the dependent variable is the intrahousehold decisionmaking index (in standard deviations). Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C31: Agricultural Self-Efficacy and Intra-Household Decisionmaking: Regression Analysis (Exc. Acquiescent Respondents)

	All			Married		
	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)
Tanzania × **Agricultural SE (AGSE)**	0.11***	0.11***	0.07**	0.14***	0.15***	0.04
	(0.03)	(0.04)	(0.03)	(0.04)	(0.05)	(0.03)
Female	-0.83***			-1.08***		
	(0.05)			(0.05)		
Age	0.01***	0.02***	0.00	0.01***	0.01***	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Secondary	0.18**	0.23**	0.02	0.24***	0.34***	0.00
	(0.07)	(0.09)	(0.08)	(0.09)	(0.12)	(0.09)
Married	-0.38***	-0.55***	0.20**			
	(0.06)	(0.07)	(0.08)			
Outcome mean	-0.06	-0.29	0.60	-0.20	-0.51	0.66
Observations	1,213	902	311	832	612	220

Notes: This table presents OLS regressions where the dependent variable is the intrahousehold decisionmaking index (in standard deviations). Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C32: Generalized Livelihoods Self-Efficacy and Intra-Household Decisionmaking: Regression Analysis (Exc. Acquiescent Respondents)

	Intra-Household Decisionmaking						IPV(Female)		
	All	All		Married			All		
	All	F	M	All	F	M	Any IPV	Emotional IPV	Physical IPV
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Kenya IDRC × **Generalized Livelihoods SE (GLSE)**	0.15***	0.15***		0.11***	0.10***				
	(0.00)	(0.00)		(0.00)	(0.00)				
Kenya KYEOP × **Generalized Livelihoods SE (GLSE)**	0.33***	0.33***	0.07*	0.33***	0.33***	0.91*	-0.04***	-0.03***	-0.03***
	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.09)	(0.01)	(0.01)	(0.01)
Tanzania × **Generalized Livelihoods SE (GLSE)**	0.25***	0.24***	0.11**	0.21***	0.21***	0.10***			
	(0.02)	(0.01)	(0.00)	(0.01)	(0.00)	(0.00)			
Female	-0.63**			-0.96***					
	(0.11)			(0.09)					
Age	0.02*	0.03*	0.00*	0.01***	0.01***	-0.00*	0.01*	0.00	0.00
	(0.01)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Secondary	0.02	0.02	-0.07	0.09**	0.10*	-0.04	-0.05***	-0.03	-0.07***
	(0.04)	(0.04)	(0.02)	(0.02)	(0.03)	(0.05)	(0.02)	(0.02)	(0.02)
Married	0.08	0.07	0.21**				-0.45***	-0.45***	-0.45***
	(0.13)	(0.14)	(0.01)				(0.03)	(0.04)	(0.04)
Survey FE	✓	✓	✓	✓	✓	✓			
Outcome mean	-0.05	-0.07	0.56	-0.02	-0.06	0.64	0.31	0.26	0.21
Observations	6,883	6,596	287	3,332	3,137	195	2,202	2,202	2,202

Notes: This table presents OLS regressions where the dependent variable is the intrahousehold decisionmaking index (in standard deviations). Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C33: Locus of Control and Intra-Household Decisionmaking: Regression Analysis (Exc. Acquiescent Respondents)

	All F (1)	Married F (2)
CIV × **Locus of control (S-LOC)**	0.05* (0.00)	0.04** (0.00)
Kampala × **Locus of control (S-LOC)**	-0.00 (0.01)	0.02** (0.00)
Female		
Age	-0.01 (0.01)	0.00 (0.01)
Secondary	0.21 (0.04)	0.28 (0.05)
Married	0.59*** (0.00)	
Survey FE	✓	✓
Outcome mean	0.01	0.31
Observations	1,448	740

Notes: This table presents OLS regressions where the dependent variable is the intrahousehold decisionmaking index (in standard deviations). Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

C.3.2 PCA Index

Table C34: Goal-Setting Capacity and Intra-Household Decisionmaking: Regression Analysis (PCA-index)

	All			Married		
	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)
Kenya IDRC × Goal-setting	0.08***	0.08***		0.10*	0.10*	
	(0.00)	(0.00)		(0.01)	(0.01)	
Tanzania × Goal-setting	0.13***	0.14***	0.06*	0.16**	0.20**	0.04
	(0.00)	(0.00)	(0.03)	(0.00)	(0.01)	(0.03)
Female	-0.76**			-1.04***		
	(0.05)			(0.01)		
Age	0.02	0.03	0.00	0.01**	0.01*	0.00
	(0.01)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)
Secondary	-0.00	-0.00	0.04	0.16	0.18	0.03
	(0.08)	(0.08)	(0.07)	(0.10)	(0.15)	(0.07)
Married	0.16	0.17	0.20***			
	(0.45)	(0.48)	(0.07)			
Survey FE	✓	✓		✓	✓	
Outcome mean	-0.00	-0.09	0.62	0.07	-0.08	0.67
Observations	3,077	2,685	392	1,446	1,159	287

Notes: This table presents OLS regressions where the dependent variable is the intrahousehold decisionmaking index (in standard deviations). Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C35: Agricultural Self-Efficacy and Intra-Household Decisionmaking: Regression Analysis (PCA-index)

	All			Married		
	All	F	M	All	F	M
	(1)	(2)	(3)	(4)	(5)	(6)
Tanzania × Agricultural self-efficacy	0.14***	0.15***	0.06**	0.15***	0.18***	0.04*
	(0.02)	(0.03)	(0.03)	(0.03)	(0.04)	(0.03)
Female	-0.78***			-1.01***		
	(0.04)			(0.05)		
Age	0.01***	0.02***	0.00	0.01***	0.01***	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Secondary	0.18***	0.23***	0.05	0.24***	0.34***	0.04
	(0.06)	(0.08)	(0.07)	(0.07)	(0.10)	(0.07)
Married	-0.38***	-0.55***	0.18**			
	(0.05)	(0.07)	(0.07)			
Outcome mean	-0.00	-0.24	0.62	-0.13	-0.45	0.67
Observations	1,416	1,024	392	988	701	287

Notes: This table presents OLS regressions where the dependent variable is the intrahousehold decisionmaking index (in standard deviations). Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C36: Generalized Livelihoods Self-Efficacy and Intra-Household Decisionmaking: Regression Analysis (PCA-index)

	Intra-Household Decisionmaking						IPV(Female)		
	All			Married			All		
	All	F	M	All	F	M	Any IPV	Emotional IPV	Physical IPV
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Kenya IDRC × Generalized livelihoods self-efficacy	0.14***	0.13***		0.09***	0.09***				
	(0.00)	(0.00)		(0.00)	(0.00)				
Kenya KYEOP × Generalized livelihoods self-efficacy	0.30***	0.30***	0.31**	0.29***	0.29***	0.03	-0.03***	-0.02**	-0.02***
	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.03)	(0.01)	(0.01)	(0.01)
Tanzania × Generalized livelihoods self-efficacy	0.23***	0.24***	0.11**	0.22***	0.23***	0.10***			
	(0.02)	(0.01)	(0.00)	(0.01)	(0.00)	(0.00)			
Female	-0.62**			-0.89**					
	(0.10)			(0.10)					
Age	0.02*	0.03*	0.00*	0.01***	0.01*	0.00	0.01***	0.01**	0.00
	(0.01)	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Secondary	0.04	0.04	0.02	0.09*	0.10	0.02	-0.07***	-0.04**	-0.07***
	(0.04)	(0.04)	(0.01)	(0.03)	(0.04)	(0.02)	(0.02)	(0.02)	(0.01)
Married	0.08	0.08	0.17				-0.49***	-0.49***	-0.44***
	(0.12)	(0.13)	(0.04)				(0.03)	(0.03)	(0.03)
Survey FE	✓	✓	✓	✓	✓	✓			
Outcome mean	0.00	-0.03	0.59	0.04	-0.01	0.66	0.31	0.25	0.20
Observations	8,599	8,177	422	4,319	4,018	301	2,864	2,864	2,864

Notes: This table presents OLS regressions where the dependent variable is the intrahousehold decisionmaking index (in standard deviations). Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table C37: Locus of Control and Intra-Household Decisionmaking: Regression Analysis (PCA-index)

	All F (1)	Married F (2)
CIV × Locus of control	0.08*	0.06**
	(0.01)	(0.00)
Kampala × Locus of control	0.01*	0.05**
	(0.00)	(0.00)
Female		
Age	-0.01	0.00
	(0.01)	(0.01)
Secondary	0.20	0.28
	(0.04)	(0.05)
Married	0.59***	
	(0.00)	
Survey FE	✓	✓
Outcome mean	0.01	0.31
Observations	1,449	741

Notes: This table presents OLS regressions where the dependent variable is the intrahousehold decisionmaking index (in standard deviations). Columns labeled All pools female and male respondents, while columns labeled F and M restrict the sample to female and male respondents, respectively. Standard errors, reported in parentheses, are clustered at the survey level when the model includes survey fixed effects (if the outcome variable is available in more than one survey) and are robust to heteroskedasticity otherwise. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.