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What the World Happiness Report Doesn't See: The Sociocultural Contours of Wellbeing in Northern Tanzania

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Abstract: This paper presents a mixed methods approach to understanding wellbeing in the Kilimanjaro region of northern Tanzania — a country consistently ranked by the World Happiness Report as one of the least happy in the world. A primary objective is to demonstrate how qualitative data offering bottom-up perspectives on wellbeing offer a necessary complement to quantitative self-report measures, allowing for more nuanced cultural understandings of lived experience and wellbeing that recognize diversity both globally and locally. The research contextualized responses to standardized life evaluations (including the Cantril ladder question used by the World Happiness Report) through observations and interviews along with culturally sensitive measures of emotional experience. Findings show Kilimanjaro to have more positive life evaluations than Tanzania as a whole, and significant within-region demographic variation driven particularly by lower levels of wellbeing for nonprofessional women compared with nonprofessional men and professionals. In part because such demographic groups were often unfamiliar with standardized self-report measures, it was only through interviews, case studies, and culturally sensitive reports of emotional experience that we were able to recognize the diverse and nuanced life circumstances which individuals and groups were navigating and how those circumstances interacted with wellbeing. Drawing on the example of nonprofessional women for illustration, we describe how key sociocultural factors – particularly, family stability, parenting circumstances, social relationships, and meeting life course expectations -- intersect with economic realities to create varied experiences of wellbeing. The complex picture of locally understood wellbeing that emerged from this research presents an alternative picture to global perspectives reliant on survey self-reports. It serves as a reminder of the importance of methodological choices in global wellbeing research and urges the addition of local perspectives and paradigms to inform policy and practice.

Keywords: wellbeing, happiness, mixed methods, cultural psychology, Tanzania.

1. Introduction

Global studies of wellbeing such as the World Happiness Report (Helliwell, Layard, Sachs, & De Neve, 2021) have become popular because of their potential for identifying social indicators of human development that might be distinct from economic and structural markers of societal success. To make global comparisons feasible, the World Happiness Report relies primarily on data from a single self-report item: the Cantril ladder question asking people to place themselves on one of ten ladder rungs where "the top of the ladder represents the best possible life for you

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and the bottom of the ladder represents the worst possible life for you." The data from this measure allows researchers and policy makers comparative insight into macro-level variables that may impact wellbeing, but it is also often used to make more tenuous psychological claims about national levels of happiness. From a cultural psychology perspective, understanding wellbeing and emotions in diverse sociocultural communities is a notoriously complex task that requires careful attention to local contexts of human development (Shweder, Haidt, Horton, & Joseph, 1993; Uchida, Norasakkunkit & Kitayama 2004; Wierzbicka, 2010). Drawing on this perspective, here we approach happiness and wellbeing as subjective psychological experiences shaped by both broadly experienced human needs and concerns and varying local ones.

The complexity of understanding happiness and wellbeing in diverse local contexts may be particularly pronounced in non-Western contexts where standard survey measures, such as the Cantril ladder question, are unfamiliar. In fact, although global measures of wellbeing often intend to go beyond economic markers of societal success, most countries at the top of the World Happiness Report ratings are in relatively wealthy regions of the world that cultural psychologists identify as globally W.E.I.R.D. (Western, Educated, Industrialized, Rich, and Democratic; Henrich, Heine, & Norenzayan, 2010). In the 2021 World Happiness Report (Helliwell, Layard, Sachs, & De Neve, 2021), for example, the 10 highest ranked countries are all high-income European nations (with the exception of New Zealand) while the bottom 10 ranked nations are mostly low-income countries in sub-Saharan Africa (the three non-African countries are Yemen, Haiti, and Afghanistan). These patterns suggest that relying on single survey items for making global comparisons seems to continue an emphasis on economic and structural, rather than sociocultural, influences on wellbeing.

The limitations of basic standardized measures for exploring diverse sociocultural experiences of wellbeing have been widely recognized by researchers (e.g., Mahali et al., 2018; Selin & Davey, 2012; White, 2016). In one recent initiative, for example, a distinguished group of positive psychology researchers worked with the Gallup World Poll to "add more culturally relevant constructs and questions to existing Gallup modules" (Lambert et al., 2020). The additions address dimensions of wellbeing such as "balance and harmony," "relationship to nature," and "relationship to group," allowing for much greater nuance in making cross-cultural comparisons. But this effort still relies on large-scale survey measures that offer limited opportunities to integrate diverse experiences within cultures and between people into bottom-up understandings of wellbeing.

Other scholars have proposed more intensive mixed methodology approaches as critical to better understanding local experiences of wellbeing (e.g., Mathews, 2012; Thin, 2012). Such scholars suggest that better accounting for community perspectives in local contexts is important both as a complement to survey data that risks oversimplifying the nature of "culture" and as a humanistic endeavor guided by a respect for the diverse stories that are essential to human experience. Yet, despite strong conceptual support, in practice the types of intensive mixed methods research needed to better understand wellbeing in diverse local contexts can be time, labor, and cost prohibitive while also requiring the integration of distinct methodologies. Thus, while there is a rich qualitative literature tangentially related to wellbeing in fields such as medical anthropology and public health (e.g., Fleming & Manning, 2019; Greenhalgh, 2016), there are few existing examples of research contextualizing global survey measures with scalable methodologies that attend to the dynamics of wellbeing in specific local contexts.

The present study was designed to pilot methodologies and gather data exploring the value of research that considers wellbeing to be both a global construct and local sociocultural phenomenon. The research presented here draws from an intensive multiyear study of happiness

and wellbeing in the Kilimanjaro Region of northern Tanzania using a mix of surveys, structured interviews, case studies, and ethnographic observations. Tanzania was of particular interest because of its consistent ranking near the bottom of the World Happiness Report on terms that may not have been ideal for the reliability and validity of self-reports in this local context. In the years 2014 to 2016 leading up to our research, for example, Tanzania was ranked the third most unhappy in the world among the 149 countries surveyed (Helliwell, Layard, & Sachs, 2017). Yet in Tanzania, as in most any distinct locale, there is wide variation by region, demographic groups, and individuals in levels, definitions, and experiences of wellbeing.

We thus contextualize findings from the World Happiness Report, focusing on life evaluations derived from Cantril ladder, with data accounting for the particular sociocultural realities of wellbeing in Kilimanjaro. We attend to elements of the context that include structural and economic factors regularly considered in global comparisons, but expand our focus to regional, demographic subgroup, and person level variables along with cultural meanings, values, and beliefs. All of these elements of sociocultural context shape how individuals define and experience wellbeing, and thus require research attention if we are to better understand and support efforts to foster wellbeing in non-WEIRD settings.

1.1 From global to local: Researching the contexts of wellbeing

How then might sociocultural context be relevant to global comparisons of wellbeing such as those based on the World Happiness Report? First, it is worth emphasizing that the World Happiness Report itself explains in technical notes that its focus on the single Cantril ladder item as a "life evaluation" is only one component of wellbeing — the other critical components include reports of positive affect and reports of negative affect (Helliwell, Layard, Sachs, & De Neve, 2021). It also notes that measures of affect seem less useful for global comparisons because they do not vary by country to the same degree as life evaluations. For life evaluations as measured by the Cantril ladder item it finds six dimensions of national context most predictive: GDP per capita, social support, healthy life expectancy, freedom to make life choices, generosity, and perceptions of corruption. These variables, however, perpetuate the emphasis on economic context as the primary driver of wellbeing (see, for example, Deaton, 2008).

To move beyond such an approach, some scholars have proposed alternative measures more attuned to structural variables relevant in non-WEIRD countries and regions such as sub-Saharan Africa (e.g., Elliot, Dixon, Bisung, & Kangmennaang, 2017; Khumalo, Temane & Wissing, 2010). While these approaches are important and useful, any such approach drawing primarily on standardized nation-level data and comparisons still risks homogenizing diverse regions and countries. Even within WEIRD countries, for example, researchers have found reliable variations in wellbeing between cities and counties because of variations in income, population density, health, education, and other related variables (Florida, Mellander, & Rentfrow, 2013; Lawless & Lucas, 2010).

These types of contextual variables seem particularly robust as related to demographic groupings by socioeconomic status, gender, and age. A great deal of research, for example, finds that relative income within a particular reference group is closely linked to subjective wellbeing (Clark et al., 2008; Diener & Seligman 2004). These class differences may be even more significant in low-income regions when a person's income can be insufficient to meet basic needs (Reyes-García et al., 2016). In addition, World Happiness Report research using Cantril ladder data finds that women generally report higher levels of wellbeing than men, while younger adults generally report higher levels of wellbeing than older adults (Fortin, Helliwell, & Wang, 2015). Importantly, however, these general differences in life evaluations also vary by region and

country such that in many sub-Saharan African countries' women report lower life evaluations than men.

Accounting for these aspects of context may be more complicated when moving beyond life evaluations to consider affect and emotional experience. In self-reports of whether people had recently felt the positive emotion 'happiness,' for example, there are few overall gender differences while age differences vary significantly by global region. Regional differences in World Happiness Report data include the finding that in east Asia there are few age differences in recently experiencing the positive emotion of happiness, whereas data from sub-Saharan Africa suggests younger adults are more likely than older adults to report recent experiences of happiness (Fortin, Helliwell, & Wang, 2015). In contrast, World Happiness Report data on the negative emotion of 'depression' shows fewer gender differences in sub-Saharan Africa than in other regions, and less age-related change. Further, this survey data does not account for the ways depression manifests and is understood in culturally diverse ways (e.g., Haroz et al., 2016; Obeyesekere, 1985) Thus, while demographic variables seem to consistently matter in shaping experiences of wellbeing, those experiences take on meaning in different ways depending on definitions of wellbeing and the dynamics of particular sociocultural contexts.

Regional and demographic variations in wellbeing have prompted researchers interested in culture and happiness to promote a need for more attention to within-country and within-culture differences (e.g., Oishi & Gilbert, 2016). Cultural values may, for example, make for different experiences of wellbeing among Aboriginal Australian communities (Heil, 2012) or hunter-horticulturalists in Bolivia (Reyes-Garcia, 2012). Likewise, Dzokoto (2012) argues that understanding happiness in a place such as Ghana requires taking global, cultural, and phenomenological perspectives — moving from macro structural factors to considerations of personal experience. A more phenomenological approach, including efforts to employ ethnographic fieldwork toward understanding local conception of wellbeing, has been successfully employed in non-Western contexts ranging from indigenous Cameroonian communities (Reyes-Garcia et al., 2021) to the Swahili of Lamu Town in Kenya (Marazy & Mafazy, 2019).

The importance of bottom-up methodologies in contextualizing the meaning of wellbeing is widely recognized by cross-cultural researchers (e.g., Delle Fave et al., 2016; Diener, Lucas, & Oishi, 2018; Mathews, 2012; Thin, 2012), and may be particularly important in non-WEIRD contexts such as sub-Saharan Africa (Gari & Mylonas, 2009). In fact, methodology itself may shape accounts of wellbeing, with qualitative and person-centered methodologies particularly important to recognizing the inherently cultural nature of wellbeing (White, 2016). Thus, as one example from Zambia, White and Ramirez (2016) found that rural participants tended to respond to research questions about self-worth primarily in reference to their economic situation despite qualitative case studies revealing many other sources of meaning in their lives. Likewise, speaking specifically to Tanzania, Kilonzo and Simmons (1998) have argued that positive mental health in Tanzanian communities can only be understood in relation to traditional contexts where health involves a distinctive intertwining of spiritual, mental, social, and physical realms. These types of findings reinforce the importance of research that contextualizes standardized global comparisons of wellbeing through considerations of local experiences within particular sociocultural communities.

1.2 Research questions

The broad research project described through the rest of this paper was guided by an effort to contextualize the global construct of wellbeing (as operationalized by Cantril ladder data)

through careful attention to local sociocultural experience in Kilimanjaro. At the conceptual level, the research began with the general question of how wellbeing is experienced in a country designated by the World Happiness Report as one of the least happy in the world. At a practical level, the research was situated at a major regional medical center in northern Tanzania interested in work that would offer clinical researchers and health care providers a culturally sensitive understanding of wellbeing of relevance to local health care provision. The broad questions of the research were thus oriented toward bridging between global comparisons of wellbeing and local experiences of wellbeing, with particular attention to piloting methodological approaches that could inform local policy and practice. While the larger project also investigated mental health related variables, for present purposes we focus on questions of wellbeing as initially defined using Cantril ladder and as elaborated through community-based fieldwork that attended to affective wellbeing and individual experience. The specific questions that guide this paper are:

1. How do people within Kilimanjaro Region of northern Tanzania, a non-WEIRD sociocultural context, respond to and reflect upon the Cantril ladder question, the primary measure of wellbeing used in the World Happiness Report?

2. What aspects of local sociocultural context seem associated with life evaluations in the Kilimanjaro Region, and how might demographic variations such as socioeconomic status and gender inform a more sociocultural understanding of wellbeing?

3. How might methodologies beyond Cantril ladder that are attentive to local emotional experiences and personal narratives help contextualize understanding of wellbeing relevant to local policy and practice?

2. Methods

2.1 Overview and design

This study was based at Kilimanjaro Christian Medical Centre, a major referral hospital serving surrounding regions with a focus on the Kilimanjaro region (one of twenty-five regions of mainland Tanzania). Data collection occurred in two general phases during 2018-2019: an initial exploratory qualitative phase to understand relevant dimensions of the local sociocultural context, which informed a second phase of community-based population sampling using mixed methods including standardized surveys, interviews, and case studies. This paper focuses primarily on the second phase, and while the broader project examined both wellbeing and common mental disorders, this paper reports only wellbeing findings.

2.2 Initial sampling and data collection

Our sampling strategy was developed in consultation with local experts at the Tanzania Ministry of Finance and Economics Affairs National Bureau of Statistics Kilimanjaro Regional Office (see, National Bureau of Statistics and Office of Chief Government Statistician, 2014). The sampling focused on the largest segment of population, working adults from 18-64 years old, because of our interest in working age adults comprising the majority of the population served by the medical center. To achieve a representative sample of this group, we recruited participants from three geographically dispersed field sites offering access to major groups in our target population across the Kilimanjaro region: an urban outdoor marketplace, a semi-rural village center, and an employment hub with professionals. To achieve recruitment targets, we developed a screening log for potential participants to ensure the final sample matched local demographics.

The recruitment of participants, and the use of the screening log, were implemented by an eight person Swahili-speaking field research team recruited locally who completed an eight-week course in culturally sensitive clinical methods of interviewing. The research team approached adults in each community with guidelines in place to prevent over-recruitment of individuals familiar or related to those assisting us and to protect the randomness of our sample. Members of the community were invited to participate in on-site data collection offices that allowed entry and exit removed from public view, and were offered a modest cash incentive for their participation. Table 1 shows regional demographics alongside the composition of our total 200 adult sample and our final 128 person "core sample" of participants identified as reliable in their Cantril ladder responses through a process described further below. This sample of employed adults accurately represents 83.4% of adults in the region, excluding other groups in the census within our target age group (unemployed, 3.6%; in-home laborers, 7.8%; students, 3.7%; unable to work, 1.5%).

Table 1. Demographics of total and core samples, unweighted, relative to estimates for the Kilimanjaro regional population.

		Population proportions	Sample proportions N=200	N=128	P-value
Gender	Female	51.6%	52.0%	46.8%	0.421
	Male	48.4%	48.0%	53.2%	
Religion	Christian	67.0%	75.5%	77.4%	0.794
	Muslim	33.0%	24.0%	22.6%	
Occupation	Farmers	64.0%	47.0%	51.6%	0.488
	Street vendors	17.9%	21.5%	21.8%	0.999
	Housewives	4.3%	11.0%	7.3%	0.315
	Professionals	13.8%	20.5%	19.4%	0.942
Age category	18 - 34	44.4%	43.5%	42.7%	0.977
	35 - 49	33.3%	33.5%	35.5%	0.800
	50+	22.2%	22.5	21.0%	0.854
Education	Primary or below		52.5%	46.0%	0.301
	Above primary		47.5%	54.0%	

Notes. P-values here are based on z-tests for sample proportions comparisons of the 200-person total sample and the 128-person core sample, showing no significant differences between the two.

2.3 Measures

We labeled our primary data collection instrument the Demographic and Psychosocial Survey (DPS). It was a mixed methods tool informed by global wellbeing research and local understandings derived through our initial phase of exploratory research. The DPS was initially designed in English using many existing items from English language surveys, but was translated to Kiswahili and back-translated before use in the field. Field testing found the DPS to be appropriate for men and women of different education levels, ages, and tribal and religious communities. Administered verbally and individually, the DPS took between one and two hours to complete depending on a participant's education level. Table 2 lists the areas addressed in the DPS.

Table 2. Topical areas in the Demographic and Psychosocial Survey (DPS)**.**

1. Basic demographics: gender, age, residential location, religion, religiosity, education, literacy, tribe, and relationship status
2. Wellbeing (including Cantril life ladder)
3. Family composition and experience: marriage and children (created family) and family of origin
4. Household composition
5. Social experiences
6. Socioeconomic conditions, resource sufficiency to meet needs and perceived financial status
7. Urbanization and mass media exposure
8. Health status, healthcare utilization and common mental disorders
9. Religious identity, beliefs and practices
10. Stressful life events and religious coping
11. Cantril life ladder and cognitive interview exploring response selection
12. Affect balance, positive and negative emotions, and emotions interview exploring recent situations in which endorsed emotions were experienced

2.3.1 Measures of wellbeing

Following the most common definition of subjective wellbeing (Diener, 1984) and the methods of the World Happiness Report, we assessed wellbeing using life evaluations along with reports of positive and negative affect. For life evaluations we replicated the World Happiness Report use of Cantril life ladder (Helliwell, Layard, & Sachs, 2017), but added what we labeled a "cognitive interview" to ask participants how they selected their ladder response. The cognitive interview asked participants what experiences they considered in choosing their ladder response, how they defined the best and worst lives possible for them, how they understood the meaning of their selected number, and how easy or difficult it was for them to answer the question. As explained later, results from the cognitive interviews shaped the final core sample we used for data analysis.

To supplement the cognitive interview, we included an "emotions interview" to capture wellbeing in positive and negative affect along with affect balance (Bradburn, 1969). As a general measure of affect balance, we asked participants to identify how much their experiences were negative versus positive in two time frames: life overall and in the last week. To assess specific positive and negative emotions experienced in life overall and in the last week, we initially considered using the PANAS (Watson, Clark, & Tellegen, 1988) including its international version (Thompson, 2007). Interviews and focus groups, however, suggested those measures to be a poor fit for local experience. We thus gathered a large list of positive and negative emotions in familiar Kiswahili language terms, and used focus groups to winnow the list to the ten positive and ten negative emotions that were recognized as important and distinct in our target communities. We field tested our final list with groups varying by levels of education, gender, age and religion, finding it to be easily comprehensible across all groups. Examples of the final instrument (available upon request to the authors) include the positive emotion of "tumaini" (roughly translated as "hope") and the negative emotion of "aibu" (roughly translated as "shame"). After asking participants to identify each of the positive and negative emotions experienced in the last week, we asked them to describe the situations in which it was

experienced. These descriptions helped contextualize our analysis by offering examples of how positive and negative affect were experienced locally.

2.3.2 Descriptive variables

The DPS included a series of demographic questions along with questions drawn from other research to assess common psychosocial and other correlates of wellbeing in global wellbeing research as well as potential correlates identified through exploratory fieldwork in Kilimanjaro. The demographic and economic questions were drawn from Tanzania's 2015-16 Demographic and Health Survey and Malaria Indicator Survey, and the Basic Demographic and Socio-Economic Profile of Kilimanjaro Region undertaken in June of 2015. These questions allowed us to document variables including occupation, education, marital status, children, religion, food security, bank account and livestock ownership.

The DPS also measured food security by asking "How often in the last year did you have problems in satisfying the food needs of the household?"; perceived financial status by asking "Comparing your financial situation to other people your age, would you say that you are better off or worse off financially?"; needs sufficiency by asking "Over the last 12 months, my family and I had sufficient financial resources to pay for…." items include: schooling, shelter, clothing, transportation, food, medical and health care, community participation, recreation and leisure; and parenting satisfaction by asking "At this point in your life how satisfied do you feel as a parent?" and "Overall, how well or poorly do you feel your child or children are doing at this point in their lives compared to other children their age/s?" Other measures used in the current analysis include marital satisfaction, an 8-item social support scale derived from the Perceived Availability of Social Support Scale (Newland & Furnham, 1999), and a 3-item loneliness scale (Hughes, Waite, Hawkley, & Cacioppo, 2004), along with items drawn from the Pew Forum on Religion & Public Life (2010) surveys to assess the importance of religion, Africanist religious practices, and the use of traditional healers (drawn from Pew Forum on Religion & Public Life surveys reported in 2010). We also report below on health as assessed through questions asking participants to rate whether "health is a big concern" and whether "my health is near perfect." Translated versions of all these measures proved comprehensible during pilot testing of the DPS instrument and potentially useful for purposes of piloting them in this context as potential predictor variables.

2.4 Identifying a core sample

While responses to Cantril life ladder were central to our research, it became clear through field observations that many participants had difficulty with this measure of wellbeing. To quantify this difficulty, we trained two members of the local research team to code cognitive interview responses and assign an expected ladder score to each participant based on participants' narrative accounts of their life evaluation. The two independent raters assigned expected ladder scores in three categories: negative (0-3), mixed (4-6) and positive (7-10). The raters realized moderate agreement (Fleiss Kappa = 0.502 (p<0.001)), while agreement with self-reported ladder scores occurred in only 128 out of 200 total cases. Beyond this numerical discrepancy, our field research led us to be skeptical of the reliability and validity for cases where self-reported ladder scores were different from expected ladder scores. We observed two common reasons for discrepancy.

First, participants with lower education commonly misunderstood or substituted another understanding of the question. A vast majority of all participants reported that they had never been asked a question like the ladder question. Summarizing subjective states using a survey

question seemed foreign. In one case, for example, a nonprofessional woman who worked as a farmer was unable to understand the question, alternating between reporting her experience as a 0 and 10. In a second case, another nonprofessional woman who worked as a farmer responded first with a 6 and then with an 8, believing that her response would help her financially; when probed by the interviewer she was unable to relate to the concept of a life evaluation. A third nonprofessional woman farmer responded to the question as an aspiration, selecting a 10 in the hope that her children would be successful, own their homes and help her. A nonprofessional woman who worked as a street vendor had difficulty identifying a single number to represent a stable experience since she felt her life fluctuated based on whether she was able to meet her basic needs.

As a second reason for discrepancy across the educational and socioeconomic spectrum, participants did not consider or integrate negative experiences into their chosen ladder response. They excluded or downplayed aspects of hardship that they conveyed in narrative. Some said that they chose a number "in the middle" so as not to be at the bottom of the range, indicating a press for social desirability. One male doctor, for example, reported himself to be a 6, noting that he is "not doing very well" and regretted his chosen profession but didn't want to see his life as less than a 5. Likewise, a female doctor reported herself to be a 5, saying her family was falling apart, her husband (from whom she was separated) had "demons in his head", and family was the most important thing to her but she wanted to be in the middle. In a third case, a nonprofessional woman farmer selected a 7 despite saying that her husband, whom she lived with, had married and provided for another woman and left her unable to provide more than a meal a day for her children or to pay their school fees. She was also unable to seek treatment for physical pains in her legs, and gave no rationale for her generally positive life evaluation.

With our interviews and field work suggesting many such divergent interpretations of the ladder question, for purposes of quantitative analysis we were only confident in the reliability and validity of non-discrepant responses where self-reported ladder scores were in line with expected ladder scores based on cognitive interviews. We thus base most of our statistical analysis on 128 non-discrepant cases from the total sample, while emphasizing that this decision was based on a systematic qualitative review of all cases. This resulted in a core sample for statistical analysis with a mean ladder score of 4.65 (N=128, SD=2.42), which was significantly lower than that of the total sample of 5.4 (N=200, SD = 2.48, p < .001). While chi-square analysis of demographic differences between the core sample and the total sample revealed no overall differences, difficulty understanding the ladder question did prove more common for women and respondents with lower levels of education. This furthered our general concerns about primary reliance on the Cantril ladder question in settings where less educated and culturally distinct populations may be unable to relate to this Western-style exercise of life evaluation.

The demographic characteristics of our core sample are reported in Table 3. The sample and the Kilimanjaro population it represents are comprised largely of young Christian and Muslim farmers and street vendors from ethnic groupings the Tanzania census identifies as most common to the region. These demographics represent the religious and mostly agrarian character of a community living with limited material resources and significant health concerns. It foreshadows the importance of constrained educational opportunities in their wellbeing, both for themselves and as concerns their children's future.

Table 3: Demographic profile of the final weighted core sample (N = 128).

		N	Proportion
Education	Primary or below	62	48.8%
	Above primary	66	51.2%
Marital Status	Married	72	56.5%
	Separated/divorced	15	11.4%
	Widow/widower	8	6.0%
	Single	33	26.1%
Children	Has children	105	82.2%
	Average number of children (all cases)	M=2.75	SD=2.34
	Average number of children (parents only)	M=3.34	SD=2.15
Religion	Identifies religion as very important in his/her life	127	99.1%
	Prays daily outside of religious services (daily or more)	96	75.4%
Agrarian	Has an account in a bank or other financial institution	36	28.2%
	Household owns livestock, herds, other farm animals, or poultry	81	63.0 %
Reports sufficient financial resources for (=strongly or somewhat agree)	Food	118	92.5%
	Shelter	109	84.9%
	Clothing	105	82.3%
	Transportation	94	73.3%
	Schooling	80	62.8%
	Medical and healthcare	100	78.6%
	Community participation	102	79.8%
	Recreation and leisure	84	66.1%
Health	Reports health as a big concern (somewhat or strongly agrees)	61	47.1%
	Family uses traditional healers to treat sickness	20	15.9%

Notes. Chi-squared tests of profile characteristics between the total 200-person sample and the 128-person weighted core sample show no significant differences.

3. Results

3.1 Life evaluations in Kilimanjaro

Table 4 provides a statistical overview of our core sample, presenting mean scores for our main wellbeing variables along with means for major potential correlates of wellbeing. The overall mean score on the Cantril ladder question in our core sample (N = 128) suggests a moderate average life evaluation (M = 4.65; SD = 2.42). For the total sample (N = 200), Kilimanjaro's average score (M = 5.13; SD = 2.48) was even higher and was not significantly different from the global average reported in the 2017 World Happiness Report (M = 5.31; SD = 2.28; p = 0.311) (Helliwell,

Layard, & Sachs, 2017). Our Kilimanjaro results stand in contrast with World Happiness Report data finding Tanzania to be one of the most unhappy nations in the world with a mean ladder score of 3.35 (noting, however, that the World Happiness Report statistics are based on a sample of the full population ages 15 and older).

Table 4. Core sample characteristics and correlations with Cantril life ladder

	All groups together			Nonprofessional women			Nonprofessional men			Professionals			P-value
	N	Mean (SD)	Corr	N	Mean (SD)	Corr	N	Mean (SD)	Corr	N	Mean (SD)	Corr	
Self-report ladder (0-10)	125	4.7 (2.4)		46	3.5 (2.6)		63	5.0 (2.0)		16	6.9 (1.3)		<0.001
Observed ladder (1-3)	125	1.9 (0.7)		46	1.5 (0.6)		63	2.0 (0.5)		16	2.8 (0.4)		<0.001
Affect balance last week (1-5)	125	3.7 (1.2)		46	3.5 (1.3)		63	3.7 (1.2)		16	4.2 (0.6)		0.159
Positive emotions last week (0-10)	125	6.8 (2.6)		46	6.7 (2.9)		63	7.1 (2.4)		16	5.8 (2.6)		0.244
Negative emotions last week (0-10)	125	2.7 (2.8)		46	3.6 (3.2)		63	2.2 (2.5)		16	2.2 (2.1)		0.027
Food security (1-4)	125	2.2 (1.0)	**-0.43**	46	2.6 (0.9)	**-0.30**	63	2.1 (1.0)	**-0.26**	16	1.3 (0.6)	-0.30	<0.001
Needs sufficiency (1-4)	125	3.0 (0.6)	**0.50**	46	2.9 (0.6)	**0.41**	63	3.0 (0.6)	**0.43**	16	3.5 (0.2)	0.13	<0.001
Perceived financial status (1-7)	125	3.5 (1.8)	**0.54**	46	2.7 (1.6)	**0.63**	63	3.7 (1.8)	**0.33**	16	5.0 (0.8)	0.04	<0.001
Social support (1-5)	125	3.7 (1.0)	**0.35**	46	3.6 (1.0)	**0.47**	63	3.6 (1.1)	0.12	16	4.5 (0.5)	0.19	0.003
Loneliness (0-9)	125	3.0 (2.4)	-0.09	46	3.6 (2.4)	-0.03	63	2.6 (2.4)	-0.01	16	2.7 (2.2)	0.01	0.084
Number of close connections outside household	125	2.3 (2.9)	0.14	46	2.2 (2.6)	**0.30**	63	2.1 (2.9)	0.06	16	3.1 (3.4)	-0.30	0.46
Satisfaction as a parent (1-5)	102	2.7 (0.9)	**0.45**	40	2.4 (0.9)	**0.36**	50	2.9 (0.8)	**0.34**	12	3.3 (0.6)	0.25	<0.001

Table 4. Continued

	All groups together			Nonprofessional women			Nonprofessional men			Professionals			P-value
	N	Mean (SD)	Corr	N	Mean (SD)	Corr	N	Mean (SD)	Corr	N	Mean (SD)	Corr	
How well your children are doing (1-4)	102	3.1 (0.7)	**0.32**	40	2.9 (0.7)	**0.41**	50	3.2 (0.6)	0.08	12	3.4 (0.6)	-0.08	0.009
Satisfaction with marriage or partnership (1-5)	89	3.9 (1.1)	**0.25**	30	3.3 (1.3)	0.26	48	4.2 (0.8)	0.03	12	3.9 (1.0)	0.45	0.003
Religious coping (0-28)	125	14.4 (4.5)	0.09	46	13.5 (4.1)	0.07	63	14.6 (4.2)	0.01	16	15.9 (6.3)	-0.03	0.175
Africanist religious practice (0-2)	125	0.4 (0.6)	0.09	46	0.3 (0.6)	-0.03	63	0.5 (0.7)	**0.30**	16	0.2 (0.5)	-0.36	0.336
Health is near perfect (1-5)	125	2.0 (1.1)	**-0.28**	46	2.4 (1.2)	-0.08	63	1.8 (0.9)	**-0.35**	16	1.8 (0.7)	0.22	0.003

Notes. This analysis excludes housewives (n=3) which do not belong to the three demographic subgroups. P-values are obtained using the ANOVA F-test to compare the means. Associations with self-reported ladder scores using Pearson's correlation are reported; significant correlations using the z-test for correlations are reported in boldface.

3.2 Correlates of wellbeing in Kilimanjaro

Several aspects of the sociocultural context emerged from our exploratory field work and field interviews as being central to local evaluations of wellbeing. Across all demographic subgroups there was an emphasis on perceived economic, social, and health circumstances in a person's life. There were also, however, meaningful demographic contours, confirmed in survey results, in how these aspects of the context mattered to people's life evaluations. As shown in Table 4, nonprofessional women reported significantly lower life evaluations than other groups, while all nonprofessionals reported significantly lower life evaluations than professionals. Though the three groups did not report significantly different levels of positive affect or affect balance, nonprofessionals did generally report less favorable economic, social, and health circumstances than professionals. The combined effects of gender and professional status seemed to form demographic fault lines in wellbeing for our sample.

To better understand these fault lines, we focused our analysis on comparing nonprofessional women, nonprofessional men, and professionals (who did not demonstrate significant gender differences in part because of a smaller sample size). An ANOVA F-test revealed significant differences between these groups in average life evaluations as measured by Cantril ladder (p < .001), with nonprofessional women having the lowest average life evaluation (M = 3.47; SD = 2.59), nonprofessional men having a moderate average life evaluation (M = 4.96; SD = 1.99), and professionals having an average life evaluation that was notably higher than the global mean (M = 6.92; SD = 1.33)

To explain these differences we identified correlates of the Cantril ladder scores for our whole core sample and for each of the three key demographic subgroups. In considering these correlations by demographic subgroups, however, it became clear that nonprofessionals and

women are driving most significant relationships. In fact, as shown in Table 4, for professionals no potential correlates had a significant relationship with life evaluations, a finding that is partially related to a smaller sample size but is also likely driven by lesser variation in the ability to meet basic needs. For nonprofessional women there was a particularly robust correlation between life evaluations and social support ($r = .47$; $p = .001$), between life evaluations and the number of close connections outside the household ($r = .30$; $p = .047$), and between life evaluations and perceptions of how well children are doing ($r = .41$; $p = .008$). For nonprofessional men, in contrast, the social variables seemed to matter less than health variables (as the only group where their rating of whether "health is near perfect" demonstrated a significant correlation with life evaluations: $r = -0.35$; $p = .005$).

3.3 Predictive modelling of life evaluations

Drawing on correlational results, we built multivariate regression models to further analyze differences in life evaluations along demographic fault lines. As shown in Table 5, we first examined gender and professional status as control variables (Model A), then fit predictors without control variables into the model (Model B), and then put predictors and controls together (Model C).

Table 5. Multivariate regression models predicting life evaluation scores (Cantril ladder).

	Model A		Model B		Model C	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
(Constant)	4.905	<0.001	-1.152	0.347	-0.635	0.611
Gender (0=male, 1=female)	-1.361	0.001			-0.441	0.233
Professional (0=nonprofessionals, 1=professionals)	2.514	<0.001			0.941	0.075
Age category 50+			0.689	0.116	0.772	0.077
Marriage status=separated/divorced			-1.351	0.017	-1.163	0.042
Marriage status=widow/widower			-1.397	0.06	-1.203	0.107
Marriage status=single			-0.135	0.794	-0.044	0.933
Perceived financial status			0.56	<0.001	0.493	<0.001
Needs sufficiency			1.221	<0.001	1.096	0.001
Satisfaction as a parent (0=no children)			0.283	0.092	0.285	0.086
Social support			-0.048	0.803	-0.045	0.817
Health is near perfect			-0.074	0.673	-0.04	0.823
R-square	0.208		0.493		0.512	
Adj. R-square	0.195		0.453		0.465	
Sample size	125		125		125	

The variables for these models were selected based on descriptive statistics and correlations, with a focus on selecting the most robust potential predictors of economic status, social relationships, and health. The three models together show that the differences in ladder scores by gender and

professional status are largely attributable to perceived financial status, needs sufficiency, and whether married participants are separated or divorced. Model A shows that both gender and professional status significantly predict ladder scores when no other variables are included. Model B ignores gender and professional status and shows that being separated or divorced predicts a significantly lower ladder score than being married. We suspect the divergence in marriage frequency is a factor in how gender affects life satisfaction and helps explain the findings of Model C versus B: Gender effects recede from B to C when marital status is included. Perceived financial status and needs sufficiency, in contrast, significantly predict higher ladder scores. No other predictors are significant in this model (though parenting satisfaction, included in this model and Model C only when a participant is a parent by using a dummy interaction variable, is trending toward significance). In Model C, when controlling for gender and professional status, the economic variables and marital status still significantly predict ladder scores. Importantly, in this model gender and professional status are no longer significant predictors of ladder scores. This suggests that demographic subgroup differences in wellbeing are largely explained by a person's ability to meet basic material needs and by having stable marital relations. To better understand these differences we can draw upon qualitative data to consider wellbeing in relation to lived experiences.

3.4 Qualitative data on life evaluations for nonprofessional women

The demographic fault lines in wellbeing observed in both exploratory field work and the above statistical analysis focused our attention on nonprofessional women. Nonprofessional women in Kilimanjaro seemed to drive much of the local variation in wellbeing, experiencing different realities from nonprofessional men and professionals. Beyond having average life evaluations that were lower than the region's average, nonprofessional women experienced significantly lower perceived financial status, more marital separation and divorce, more widowhood, less satisfaction with marriage, more loneliness, and less satisfaction as parents, and perceived their children to be doing less well. We turned to our qualitative data to understand what this all meant in the lived experience of nonprofessional women.

Data from our cognitive interviews helped offer a more dynamic picture of how economic, social, and health concerns were experienced by nonprofessional women. These women often emphasized the psychological weight of economic challenges relevant to their particular life course stage, particularly as impacted by unstable relationships, anxieties about providing for children, and health challenges.

For example, a 37-year-old farmer with 14- and 15-year-old children, chose 3 on the ladder question. Her life was "not good" because earning extra income was difficult and she lacked money to pay for her children's needs. She had ambitions of opening a small snack counter as a business, but did not have funds for any start-up costs. She had thought that marriage would make her life better but she and her husband separated. "I don't have his number and we don't communicate. I never see him and I don't know where he lives." Her parents were deceased. "My perspective is when I will get money and open my business and if the business does well, I will know I have a good life."

In another case, a 20-year-old single farmer without children selected a 3 on the ladder "…because there are many things that I need and I don't have up to this moment…studying, to get money for my needs, helping my family." Her goals appeared to her out of reach: "…to have my own house, to help my family, have my own family that I take care of without help from someone."

In a third case, a 50-year-old married street vendor who sold tomatoes and had three children chose number 6 "…because in the beginning I had a very difficult life as I was paying for my children's education and they needed very high school fees to the extent that it was really painful for me. Now, since they have finished school, I feel like a heavy burden has been released from me." For her, "number 10 is for people who are confident with their life, they have health insurance in case they will get sick and they are sure of having three meals a day." She reported her marriage to be "somewhat happy" on the DPS but did not mention her husband in explaining her ladder choice or in solving her financial challenges.

Providing for children economically was a focal life course challenge for nonprofessional women — immediately for mothers and anticipated for younger women planning to have children. Unstable relationships with husbands or partners not infrequently compound these challenges, leaving women to rear and support children largely or entirely on their own. Conflict, estrangement, separation and divorce often characterized these relationships. Relationships with families of origin, in-laws and extended relatives sometimes offered economic and emotional support, but sometimes did not. The burden of meeting financial needs intensified when children were in their school years; school fees and associated expenses were out of reach for most families but were seen as crucial to breaking the cycle of poverty and to the entire family's economic prospects. Limited educational opportunities, along with sometimes untreated health problems, made this all harder and could add further challenges to nonprofessional women's wellbeing.

These challenges were not, however, ubiquitous. Qualitative data also revealed some ways nonprofessional women were able to successfully navigate economic, social and health challenges. In two illustrative cases, for example, nonprofessional women experienced conflict and instability in relationships with their children's fathers along with significant economic hardship. But the two women selected Cantril ladder responses at opposite ends of the spectrum. The first, an unmarried 27-year-old farmer with a one-year-old child, selected a ladder response of 0 because she saw her life as "very difficult and different from my expectations." She did not have a house, furniture, more children and a business and the father of her child did not provide support. She was unable to complete her schooling because her mother lacked money for school fees. She also suffered from tuberculosis.

The second nonprofessional woman, a married 59-year-old farmer with four children, selected 9 on the ladder even though she said: "I have been through a very difficult life." Her husband left her and married another woman, leaving her to raise children and put them through school on her own. She had a disease, likely to be diabetes, affecting her legs. Her husband later returned to the marriage but it remained estranged and conflictual. Yet, in spite of these difficulties, this participant summed up her life as "I am treated well… We don't have problems for sure, we live well."

The crucial difference between these two participants seemed to be that the older woman was in a different life course stage, having succeeded in getting a child through schooling all the way to university. Breaking through the economic challenges to a family's social mobility offered the possibility of providing resources to raise younger children and of social security for mothers in older age. This participant's son was in his twenties at the time of the interview and was financially supporting his mother. Similarly, the previously described 50-year-old street vendor, now supported by her son, said: "When he passed to go to the University, he got a student loan. So as a parent I was responsible for everything…for all that time I was suffering and hurt a lot, but now the suffering has subsided a bit."

These older adult women's perceptions of success are uncommon, and age as a variable is only trending toward significance in our regression modeling (though overall nonprofessional

women over 50 did report higher levels of wellbeing than younger nonprofessional women). But this life course pattern proved robust in our observations and interviews, reinforcing how fruitful it can be to supplement statistical analysis of Cantril ladder responses with alternative approaches. We return to this methodological imperative in the discussion after first considering affect data as a further alternative for understanding wellbeing in local context.

3.5 Affect data for understanding local contexts of wellbeing

Paying careful attention to local reports of positive affect, negative affect, and affect balance through both survey responses and emotions interviews allows for further nuance to understandings of wellbeing in Kilimanjaro. Reported affect balance showed no significant differences across demographic subgroups, unlike life evaluations, while emotions interviews reveal multiple aspects of lived experience which contribute positively to wellbeing. Further, understanding nonprofessional women's positive and negative affect reframed our interpretation of wellbeing captured by ladder responses and cognitive interviews.

As shown in Table 6, patterns of affect across the key demographic groups diverged from life evaluation patterns in the sample. Overall, affect balance in the last week (the relative frequency of positive versus negative emotions) shows no significant difference between groups. Further, nonprofessional women report greater variation in affect balance than other groups. All groups lean heavily towards a mean positive affect balance, and although more nonprofessional women reported a negative affect balance than nonprofessional men and professionals, there were also proportionately more nonprofessional women who reported "positive experiences much more than negative experiences" than for either of the other demographic groups.

Table 6. Affect balance last week.

	Total		Nonprofessional women		Non-professional men		Professionals		P-value
	N	Percent	N	Percent	N	Percent	N	Percent	
Negative experiences much more than positive experience	6	4.8%	2	4.4%	4	6.3%	0	0.0%	0.101
Negative experience somewhat more than positive experience	21	16.9%	12	26.7%	8	12.7%	1	6.3%	
Negative experiences about the same as positive experiences	14	11.3%	5	11.1%	9	14.3%	0	0.0%	
Positive experiences somewhat more than negative experiences	48	38.7%	12	26.7%	25	39.7%	11	68.8%	
Positive experiences much more than negative experiences	35	28.2%	14	31.1%	17	27.0%	4	25.0%	
Total	124	100.0%	45	100.0%	63	100.0%	16	100.0%	

Notes. There were no significant differences between groups based on a Chi-squared test.

To analyze the reasons for greater variation in affective experience for nonprofessional women we drew upon data from our emotions interviews. The emotions interviews asked for specific examples of when each endorsed positive and negative emotion was experienced in the past week, and allowed us to explore emotional experience in relation to life evaluations discussed in cognitive interviews. Participants tended to discuss their recent emotional experiences in different ways from how they discussed their life evaluations and the experiences that factored into their Cantril ladder responses. In general, in the emotions interviews economic challenges receded while social interactions became more pronounced.

As one example, the 37-year-old farmer with two children discussed above as having chosen 3 on the ladder question reported having "positive experiences somewhat more than negative experiences" in the last week. This farmer experienced positive emotions when she was able to prepare a birthday celebration for one of her children; because she felt love for her children and relatives; because a friend gave her money to visit her in the hospital; and because her sister-in-law thanked her for the help she gave after her sister-in-law gave birth. Her negative emotions occurred when a neighbor blamed her for not sharing food with the neighbor's children and when experiencing a sibling's economic hardship.

Similarly, the 27-year-old farmer discussed above with a one-year-old who experienced her life as "very difficult" and selected 0 on Cantril ladder also reported "positive experiences somewhat more than negative experiences" in the last week. She experienced positive emotions when seeing her child start to stand, when her mother sided with her in an argument she had with the father of her child, when her brother's son hurt his eye and it was treated, and when recognizing her freedom. She spoke of no negative emotions.

The social interactions in these women's lives that engendered positive emotions were centered on children, family, relatives, friends and members of the community. The emotions interviews seemed much more likely to elicit mention of these types of social interactions than the cognitive interviews discussing responses to the ladder question — discussions which tended to focus less on social interactions and more on economic constraints and family instability. Yet, social interactions also seemed to make independent contributions to positive affect and helped buoy a general sense of wellbeing among nonprofessional women, while sometimes further helping them mitigate or cope with economic hardship and marital instability.

To compare life evaluations and affect balance ratings for nonprofessional women from a more person-centered perspective, we cross-tabulated percentages of respondents for whom the valence of life evaluations matched and mismatched the valence of affect balance ratings (see Table 7).

Table 7. Life evaluations and affect balance for nonprofessional women (N = 45).

	Affect balance last week			
	Negative much more or somewhat more than positive	Positive and negative about the same	Positive much more or somewhat more than negative	Total
Life evaluations				
Positive (7-10)	2.2%	2.2%	0.0%	4.4%
Mixed (4-6)	4.4%	6.7%	35.6%	46.7%
Negative (0-3)	24.4%	2.2%	22.2%	48.9%
Total	31.1%	11.1%	57.8%	100.0%

There was noteworthy divergence among a majority of nonprofessional women who made negative and mixed life evaluations while reporting positive affect balance in the last week. The emotional story for nonprofessional women was, in other words, decidedly more positive than cognitive life evaluations. This generally positive emotional story complicates the overall story of wellbeing in Kilimanjaro, offering a reminder that methodological choices along with the dynamics of a given sociocultural context shape how researchers and practitioners understand local meanings of wellbeing.

4. Discussion

The results of this pilot project reveal aspects of wellbeing experienced in the particular sociocultural context of Kilimanjaro that are not incorporated into the broad global perspective captured by the World Happiness Report. The project offers insight into structural variables studied at the country level by the World Happiness Report, such as gender and socioeconomic circumstances, by revealing at the regional, demographic subgroup, and person level how they and cultural aspects of context relate to wellbeing. This project illustrates how a local paradigm in wellbeing research can both extend and diverge from the generalized and summative picture of wellbeing at the country and global level offered by the World Happiness Report. We return to our research questions to summarize answers provided by this research and its implications for research, policy, and practice.

First, in response to the question of how people respond to and reflect upon Cantril ladder as a measure of wellbeing, we found that a significant number of respondents did not understand Cantril ladder and could not relate to its intended exercise of evaluating one's life and translating it to a linear scale. Another portion of respondents did not integrate the range of their experiences, especially negative ones, into their chosen number, even while mentioning these experiences in cognitive interviews as germane to their life satisfaction. Our cognitive interviews revealed underlying reasons for these challenges: education and cultural familiarity. Our research suggests that relying on Cantril ladder as a measure of life evaluation may introduce similar challenges in other non-WEIRD contexts and be reason for concern about its validity for some groups within a country or in comparing countries (Henrich, Heine, & Norenzayan, 2010). It underscores the importance of efforts to incorporate methodologies sensitive to the range of respondent sociocultural circumstances in global samples (Mathews, 2012; Thin, 2012) and why the introduction of more culturally relevant survey questions and underlying constructs in the World Happiness Report, while potentially very useful, may not be sufficient (Lambert et al., 2020).

The results from our core sample point to often-overlooked heterogeneity within broad populations aggregated by the World Happiness Report: not only does Kilimanjaro show a much higher mean ladder score than the rest of Tanzania but within the region nonprofessional women's mean ladder score is significantly lower than mean scores of other subgroups. Our analyses, by attending carefully to subgroups, revealed that nonprofessional women are driving patterns in the region's wellbeing. The ability to meet basic needs, the perception of financial status, and the marital status of being separated or divorced are simplified metrics that converge with the story evident in qualitative data: nonprofessional women experience higher levels of privation and marital conflict and instability than other groups.

Nonprofessional women exemplify a distinct experience of wellbeing shaped by the sociocultural context of their lived experience, involving wide-ranging and interacting influences such as gender, education, economic and material conditions, along with social, cultural and life course factors. These influences were qualitatively different from those of nonprofessional men

and professionals even though they are living in the same community. For example, where nonprofessional women showed a pervasive concern with meeting basic needs for themselves and their children, professionals attended more to advancing material conditions in the quality of their homes, transportation, children's education, and healthcare. Likewise, nonprofessional women were often profoundly challenged by marital conflict and instability, whereas professionals were decidedly less so — more often raising concerns about their individual purpose and meaning in terms separate from homelife and economic attainment.

Understanding wellbeing less by national mean ladder scores and more by lived experiences in distinct local contexts offers an important opportunity for global happiness research to be more sensitive to the cultural psychology of emotion (Shweder, Haidt, Horton, & Joseph, 1993; Wierzbicka, 2010). This is likely in turn to better inform policy and practice. For example, policy prescriptions for a region such as Kilimanjaro may be different from those needed in other parts of the country. And even within Kilimanjaro, our research points to the importance of supporting nonprofessional women, especially in ways that foster social and parenting experiences and children's educational attainment, as a way to target priority areas not only for this subgroup but as a priority for elevating overall wellbeing in Kilimanjaro.

Disaggregation of heterogeneous subgroups can also better inform communities of practice, such as the medical community in Kilimanjaro, by arranging often complex social, economic and other sociocultural variables affecting health and wellbeing into understandable and locally relevant models. Such local insight is likely to be more valuable in clinical education and practice than broad generalizations about Tanzania, or any country, as part of a global comparison.

This all informs an answer to our second question about aspects of local sociocultural context that seem associated with life evaluations. As noted throughout, we found the ladder question to be quite sensitive to economic conditions, which is limiting considering that many scholars and policy makers have hoped it would transcend economic conditions and serve as a less material measure of wellbeing. The impact of social interactions with spouses and partners, for example, figured prominently in the emotional experiences of our Kilimanjaro sample, as did many other social interactions with children, extended family, and community that were not as well captured by the ladder question. Such social interactions were particularly meaningful for nonprofessional women in the context of Kilimanjaro in navigating the life course, and reinforce previous research and theory emphasizing the importance of relational wellbeing in non-WEIRD contexts (e.g., Gough & McGregor, 2007; White, 2017)

This project's concern with local sociocultural context also exposed the importance of using locally sensitive measures and mixed methods to capture not only life evaluations but also other aspects of wellbeing, including narrated experiences. As suggested, the selection of a number, such as 5, on Cantril ladder by a nonprofessional woman will mean something quite different in the context of her life than a 5 chosen by a professional in Kilimanjaro or a 5 reported elsewhere in the world. Further, as personal stories of our respondents indicate, the context and meaning of two nonprofessional women selecting the same response to Cantril ladder may differ significantly in ways best understood through qualitative methodologies.

Thus, in answering our third question about methodologies beyond Cantril ladder that might be useful in contextualizing wellbeing, we found that engaging with people around locally relevant emotions opened rich opportunities for learning about experiences not pulled for by Cantril life evaluations. This in turn generated stories that would resonate with positive psychology, cultural psychology, and interdisciplinary efforts to theorize wellbeing in sub-Saharan African populations (as has been proposed by scholars such as Eloff et al., 2008; Khumalo, Temane, & Wissing, 2010; Kilonzo & Simmons, 1998; White & Jha, 2018). Our

emotional interviews and case studies revealed several life course issues that were particularly salient to nonprofessional women's wellbeing, including the importance of being able to provide one's children with educational opportunities. There were also rich opportunities to discuss spiritual, communal, and environmental dimensions that we have not emphasized in this paper but which offer important directions for future research. While these dimensions can be addressed through standardized survey items, they require context to be meaningful for local practice.

Overall, then, our project and the examples of findings reported in this paper support the importance of adding local paradigms and culturally appropriate research methodologies to the broad global perspective captured by the World Happiness Report (see also White, 2016; White & Ramirez, 2016). Owing to our interest in generating insight for the local medical and development community, our research process was distinctly local and bottom up: working as a local team of researchers, we started with understanding local conditions rather than applying a preexisting methodology for capturing wellbeing. This guided us to include a range of measures, to sample, to recruit and to employ data collection practices attuned to local conditions. We sought to understand individual persons in sociocultural context as well as the population. This process could be replicated in select locations to provide more nuance in interpreting global comparisons of numerical measures.

Our approach and recommendations have limitations. The time and resources required to do the careful work of culturally sensitive research are significant and require both qualitative and quantitative skill sets. Success in developing a locally sensitive global happiness research from the bottom up, as we are recommending, will likely face significant cross-cultural issues and coordination challenges. Although our intent was to illustrate examples of insight gleaned from using this approach in a pilot project, and couch our findings in prior calls for greater local sensitivity in wellbeing research, our examples of findings lack the reliability obtained through replication. But by demonstrating the promise of this approach, we are trying to encourage more such efforts as a necessary complement to global comparisons.

So is Tanzania in fact one of the least happy countries in the world? It does after all seem true that some places in Tanzania report negative life evaluations, and some subgroups seem to face systemic challenges that negatively impact wellbeing. But if we understand wellbeing to be defined both by global comparisons and by local sociocultural contexts, then we are compelled to go beyond standardized global questions about levels of wellbeing. We also need to ask questions that allow for insight into the lived experiences of wellbeing that can only be understood locally.

Conflict of interest statement

The authors report no conflicts of interest.

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