# Measuring subjective wellbeing in Bangladesh, Ethiopia, Peru and Thailand using a personal life goal satisfaction approach

James Copestake and Laura Camfield

February 2009

# Measuring subjective wellbeing in Bangladesh, Ethiopia, Peru and Thailand using a personal life goal satisfaction approach

James Copestake[1] and Laura Camfield[2]

## Abstract

The paper sets out an approach to assessing people's wellbeing that focuses on their perceived attainment of life goals. Section 1 explains the motivation for seeking new ways of measuring subjective wellbeing in developing countries. Section 2 briefly reviews relevant literature and process of designing the data collection instrument (referred to as the WeDQoL). Sections 3 and 4 present illustrative empirical findings from its use in Bangladesh, Ethiopia, Peru and Thailand. Section 5 concludes that much scope remains for developing new tools, like the WeDQoL, usefully to inform public policy in developing countries.

**Keywords:** Subjective wellbeing, life goals, WeDQoL, Bangladesh, Ethiopia, Peru, Thailand.

## 1. Introduction

Whether explicitly or otherwise, all development policy and practice is founded on selection of goals or outcomes behind which lie a vision of human wellbeing. In a world full of poverty, some impatience with agonising over competing definitions of wellbeing is understandable. But sharp differences persist in the way participants in development think about poverty and wellbeing, profoundly affecting what they do. In the last few years there has been some movement away from a narrowly economic vision of wellbeing to a broader vision of multi-dimensional needs embodied in the UNDP Human Development Reports and the Millennium Development Goals (Sumner 2006). However, development practice still focuses mainly on 'external' things people should have or should be able to do, while it can be argued that human wellbeing is at least as much about what people 'internally' think and feel about their life (Veenhoven 1994). Insight into people's subjective wellbeing is relevant not only to evaluating development outcomes but also to understanding the possibilities for social change. Moreover, the opportunity to share personal ideas about wellbeing and to feel

[1] Centre for Development Studies, University of Bath. E-mail: j.g.copestake@bath.ac.uk.

[2] *Young Lives*, Department of International Development - Queen Elizabeth House, University of Oxford. E-mail: laura.camfield@qeh.ox.ac.uk

part of the process by which such understanding is framed more widely in society is itself potentially meaningful and wellbeing enhancing (White 2008). The legitimacy of development activities also depends in no small part on building consensus about ultimate goals, including the elusive but powerful idea of the 'common good' (Deneulin & Townsend 2007).

There is of course a tension between giving more people more voice in defining development goals and being able to achieve anything else in the mayhem that can result. The nature of such trade-offs depend on the existence rules and norms for building consensus and delegating powers; such institutions are in turn underpinned by culture and values, including myths that leaders must defer to in order to establish popular legitimacy and respect. Improving on the mechanism for eliciting the life goals of intended beneficiaries of public action is relevant both to this process and to researching it. For example, just how important is autonomy or empowerment to the wellbeing of men and women of different ages in different contexts? And in which arena – family, community, market, civil society or the state – does it matter most? With a few notable exceptions (e.g. Clark 2000) it is surprising how little effort has been made to consult poor people in low and middle income countries not only about immediate needs but also about their values and long-term life goals.

One important response on the part of development agencies to this challenge has been to adopt various forms of participatory appraisal as an input into policy. Starting as a movement to give more weight to indigenous knowledge in specific fields (particularly agriculture, natural resource management and health) these methods have been adopted more broadly: as part of the process of elaborating national poverty reduction strategy papers and also strengthening the legitimacy of the World Bank as a global leader in promoting poverty reduction (Hickey & Bracking 2005; Cornwall & Fujita 2007; Camfield, 2006:5-10). Participatory appraisal has become professionally accepted as a form of data collection that is complementary to more closely scripted closed-question surveys (Carvalho and White 1997). An additional benefit is that it can lead directly to collective action through participatory processes of learning. On the other hand, there is a risk that the process of collective consultation results in an emphasis on the importance of shared public goods over private. In contrast, the work reported here set out to test potentially complementary ways to understand people's thoughts and feelings that are less biased towards collective ends or the goals of a dominant group.

One objection to asking individuals about their life goals and priorities is that they may themselves have unclear or biased views, a problem variously described as 'response shift' (Schwartz & Spranger 1999), 'adaptive preferences' (Sen 2002) and 'false consciousness' (Engels, 1893). But systematically eliciting the individual views does not imply automatically accepting them, or abandoning the quest for universal visions of wellbeing as well. If people are prone to biases and shifts in their understanding of wellbeing then it is important to understand why and how their 'preference constraints' are likely to affect their response to different development interventions (Appadurai 2004). A linked criticism of such data is that stated preferences of any kind can be regarded as more impulsive or opportunistic (Schwartz & Strack 1999; Bertrand & Mullainathan 2001). Against this it can be argued that revealed preferences can be equally misleading where opportunities are absent or constrained (Clark 2002), and it is an extreme position to deny most people's ability to make considered judgements about their wellbeing (Tiberius 2004; Collard 2006).

A more practical problem with individual data concerns its tractability, including how fair and representative methods for its aggregation. The standard dilemma here is that prior codification of responses facilitates subsequent data manipulation, but only by top-down imposition of categories and hence at the expense of openness to the unexpected (Morris & Copestake 1993). Even *post-hoc* classification opens up scope for analysts to manipulate or 'spin' the raw data. This is not only an epistemological problem: to the extent that individual views of wellbeing are weakened or lost then it is also a political and an ethical issue (Barahona & Levy 2003). But acknowledging this does not imply all attempts at aggregation should be rejected. Rather, the key issue is to identify and critically assess alternative ways of doing so.

## 2. Foundational ideas for development of the WeDQoL

The Wellbeing in Developing Countries (WeD) research group was formed in 2003 at the University of Bath, and was funded by the UK Economic and Social Research Council. Its formal goal was to develop a conceptual and methodological framework for understanding the social and cultural construction of wellbeing in developing countries. In addition to the UK, the group included researchers from Bangladesh, Ethiopia, Peru and Thailand. One objective of the group was to develop a new way of measuring wellbeing and then to pilot it in these countries. The starting point for this was to critically review existing approaches for

systematically measuring how people think and feel about their wellbeing (McGregor 2007). It was recognised that a huge literature already existed about how to measure wellbeing, including work by health psychologists, economists and researchers in the fields of social policy and development studies. A first task was consequently for members of the group to familiarise themselves with this work, going back to Cantril (1969), Bradburn (1969), Campbell *et al.* (1976), Easterlin (1974) and even Jeremy Bentham (Collard 2006).

One starting point for this review was the work of the World Health Organisation (WHO) on quality of life, as this was conducted in an international context, and has entailed substantial work on how to involve representatives from different countries in developing common scales. The WHO defined quality of life as 'an individual's perception of their position in life, in the context of culture and values in which they live and in relation to their goals, expectations, standards and concerns' (WHOQOL Group 1994). It developed two measures: the WHOQOL-100 and its short form the WHOQOL-BREF, both of which use responses to closed questions such as 'how safe do you feel in your daily life?' to assess people's quality of life. These are organised into 26 facets (e.g. 'self-esteem') and six domains (e.g. 'psychological'). While the domain structure was established centrally, individual questions and facets were negotiated across countries and between languages using standard protocols (Skevington 2002; Skevington *et.al.* 2004; Schmidt & Bullinger 2007). The proposed WeD measure planned to build on this foundation while giving more weight to autonomy and relatedness as well as to health in recognition of their importance as basic human needs (Doyal & Gough 1991; Devine *et al.* 2007; Camfield & Skevington 2008) and acknowledging the cultural and context specificity of subjective wellbeing outcomes (e.g. Christopher 1999). Further development of the WeD measure was informed by review of a wider range of approaches, including measures arising from self-determination theory (Ryan & Deci 2001), happiness or satisfaction with life as a whole (Diener *et al.* 1985; Veenhoven 2000), domains of life (Cummins 2000), and individualised measures such as the Patient Generated Index (PGI) (Ruta 1994, 1998). A eudemonic emphasis on satisfaction with 'individual' life goals in a particular cultural context connected closely with sociological perspectives on development; as did Ryan and Deci's emphasis on identifying factors behind long-term life satisfaction through an empirical process (see also Lyubomirsky *et al.* 2005). There was also consensus within the group that a 'gap theory' of wellbeing tallied in a promising way with the idea of

development as a planned or cognitive process,[3] as it addressed head on the dynamic and situational nature of wellbeing, For example, we felt it important to be able to distinguish between people who report being happy relative to low expectations, or who were unhappy but relative to very high expectations (e.g. Graham & Pettinato 2002; Rojas 2007).

Rather than commit directly to a particular method it was agreed to start with an exploratory phase of pilot investigations in each of the four 'WeD' countries using a range of methods. Semi-structured interviews were conducted in all four countries: 419 in Peru, 73 in Bangladesh, 120 in Ethiopia and 102 in Thailand. The smaller samples in Bangladesh, Ethiopia and Thailand reflect the fact that at this stage the research in these countries combined in-depth interviews with other methods, including focus groups, the PGI (Ruta *et al.* 2004), and the Satisfaction with Life Scale (Diener *et al*. 1985).[4] The semi-structured interview approach used in Peru influenced the research subsequently carried out in all four countries, and so is described in more detail below.

In Peru interviews were conducted by a team of six field investigators who were already living in their allotted research sites. These interviews were structured around eight questions listed in Table 1, each question having first been carefully tested both in Spanish and Quechua to ensure comprehensibility and equivalence. The field investigators systematically recorded the key concepts used in response to each, and this data was then subjected to content analysis.[5] The interviews in other countries also included questions 1, 5, 7 and 8 shown in Table 1, subject only to minor variation arising from translation. Responses to them are analysed in depth in Camfield (2006).

Work carried out in the exploratory stage was reported to a WeD internal workshop in January 2005 at which the details of a second quantitative phase of data collection were worked out. At the conceptual level it was agreed to develop measures consistent with a definition of subjective wellbeing as personal satisfaction with achievement of life goals. The WeD-Peru team used their content analysis of the exploratory phase data to construct a

---

[3] See Calman (1984) and Michalos (1985) for previous work comparing goals and aspirations with personal evaluation of how far they were realised.

[4] See also Jongudomkarn and Camfield (2006) and Camfield *et al* (2007).

[5] Findings were also used to produce reports providing an initial profile of subjective wellbeing in each site and empirical evidence for interpretation and cross-checking of subsequent analysis (Yamamoto et al. 2008).

battery of four 'native' or *emic* measures of life goals, resource availability, goal satisfaction and values. A methodology and timetable was agreed for systematically adapting these for use in the other countries, initially by cross-checking them against the data generated in the exploratory phase. This entailed dialogue between field researchers from each team, to check the equivalence of different language translations, as well as addition and subtraction of questions, much of which took place at an international workshop in Khon Kaen, Thailand (March 2005).[6]

**Table 1: Checklist for exploratory semi-structured interviews in Peru**

| |
|---|
| 1. Goals: Let's suppose that a person would like to move to live here. What things do they need to be happy? What things are necessary to be happy? |
| 2. Resources: How do they get those things? (Ask for each goal mentioned by the respondent). |
| 3. Emotions (individual level): How do you feel in relation to…? (Ask this for each goal mentioned by the respondent). |
| 4. Emotions (collective): How do people of this community feel about….? (Ask this for each goal mentioned by the respondent). |
| 5. Values: Who are the people do you most admire in this community? (Alternative question for non-formal comprehension: Who are the best persons of this community? What are the things that you admire in this person (Ask for each person mentioned). |
| 6. Social networks: Where do you find support when needed? |
| 7. Happiest life episodes: What were the happiest moments of your life? |
| 8. Unhappiest life episodes: What were the unhappiest moments of your life? |

The WeDQoL instrument produced included country specific versions of the four Peru native scales (with a core of common questions), as well as adaptations of the 'Satisfaction With Life Scale' (SWLS, Diener *et al.* 1985) and the 'Positive and Negative Affect Scale' (PANAS, Watson *et al.* 1988). Initial testing of this instrument in each country resulted in further modifications, including a decision to reduce the number of possible responses to the goals, resource availability, and values scales from five to three.[7] It was agreed to apply this

---

[6] Addition and subtraction were kept to a minimum to avoid increasing 'respondent burden' or reducing the items available for analysis solely on the basis of researchers' perspectives.

[7] In the case of goal achievement an extra response (don't have) was available in response to the question 'how satisfied are you with […]?' (A lot, so-so, not at all). Camfield (2006) describes adaptation and testing of the WeDQoL. See Camfield and King (2006) for an overview of the final instrument.

WeDQoL in each country, the target sample for each being 360 (60 per research site). Table 2 presents details of the final data set.

**Table 2: WeDQoL data base**

|  | Peru | Thailand | Bangladesh | Ethiopia |
|---|---|---|---|---|
| Research sites | 2 urban, 2 peri-urban, 3 rural | 2 urban, 2 peri-urban, 3 rural | 2 urban, 2 peri-urban, 2 rural | 2 urban, 4 rural |
| Total number of interviews | 550 | 369 | 373 | 371 |
| Country variation in the data set. | Extra data collected through second interview with 330 respondents |  |  | Eight site or sub-site specific versions were administered, reducing the pool of common items to 42 |

Analysis of results was carried out both at country level, and for a core data set comprising comparable questions asked in all four countries. Rather than imposing *a priori* weights to permit aggregation of respondents' satisfaction with different aspects of their life, their own assessment of the importance of different goals was employed. This was done using two different methods to reflect respondent preferences at individual and group levels, as described in Sections 3 and 4 below.

## 3. Finding from country level analysis of WeDQoL in the four countries

In this section we explore the level of consensus across countries on the importance of different goals by comparing the results of the goal necessity scale and presenting visual representations of the gaps in attainment of valued goals in particular countries. We then describe the development of the individually weighted goal satisfaction scale and present scores for goal satisfaction, life satisfaction, and positive and negative affect at the country level. Finally, we test the significance of differences between sub-groups within countries.

### 3.1 Necessary goals in the four countries

Table 3 shows consensus at a broad level around key goals such as health, food, and water, which support posited human needs and development priorities. Children's education is also important in Bangladesh and Peru (ranked third), although less so in Thailand (seventh) and Ethiopia (not in top 15). Even within the five main priorities, however, there are interesting variations; for example, two of the main priorities in Ethiopia relate to how people feel about their lives or engage with others. Relationships within the family and community are clearly

important, and linked to other domains: having economic independence in order to provide for your family, and being able to educate your children as part of a good upbringing, for example.

**Table 3: Top 15 goals in order of importance in each country, with mean weighted goal attainment scores**
(out of a maximum score of six)

| Ethiopia | | Bangladesh | | Peru | | Thailand | |
|---|---|---|---|---|---|---|---|
| Health | 4.9 | Food | 4.5 | Health | 4.8 | Health | 4.5 |
| Peace of mind | 4.9 | Water | 5.0 | Food | 4.7 | Food | 5.0 |
| Economic independence | 3.6 | Education | 3.4 | Education of children | 3.9 | Water | 4.5 |
| Food | 4.3 | Sanitation | 3.9 | Room/ house | 4.0 | Family relations | 4.9 |
| Behaving well | 5.0 | Good upbringing of children | 2.8 | Water/ electricity/ sanitation | 4.0 | Room/ house | 4.2 |
| Room/ house | 3.6 | Peace of mind | 3.7 | Salary work | 2.8 | Electricity | 4.6 |
| Faith | 4.8 | Family relations | 4.5 | Family relations | 4.2 | Well behaved children | 3.7 |
| Community peace | 4.5 | House/ home | 3.8 | Position of authority | 3.8 | Education of children | 3.4 |
| Family relations | 4.5 | Health | 3.7 | Community peace | 3.4 | Behaving well | 4.4 |
| Wealth | 2.4 | Children | 2.9 | Faith | 4.0 | Health care access | 4.0 |
| Personal progress | 3.2 | Personal progress | 3.0 | Behaving well | 3.8 | Wise spending | 4.0 |
| Living environment | 3.8 | Electricity | 2.6 | Professional | 1.8 | Provide for family | 3.9 |
| Land | 2.7 | Faith | 3.8 | Education of self | 3.5 | Faith | 4.3 |
| Neighbour relations | 4.4 | Roads | 3.4 | Living environment | 2.8 | Family occasions | 4.3 |
| Clothes | 3.7 | Living environment | 3.4 | Public transport | 3.4 | Household goods | 4.1 |
| | | | | | | | |
| **Mean score** | **4.0** | | **3.6** | | **3.7** | | **4.3** |

Source: WeDQoL data, 2006

Figure 1a Goal satisfaction in Ethiopia
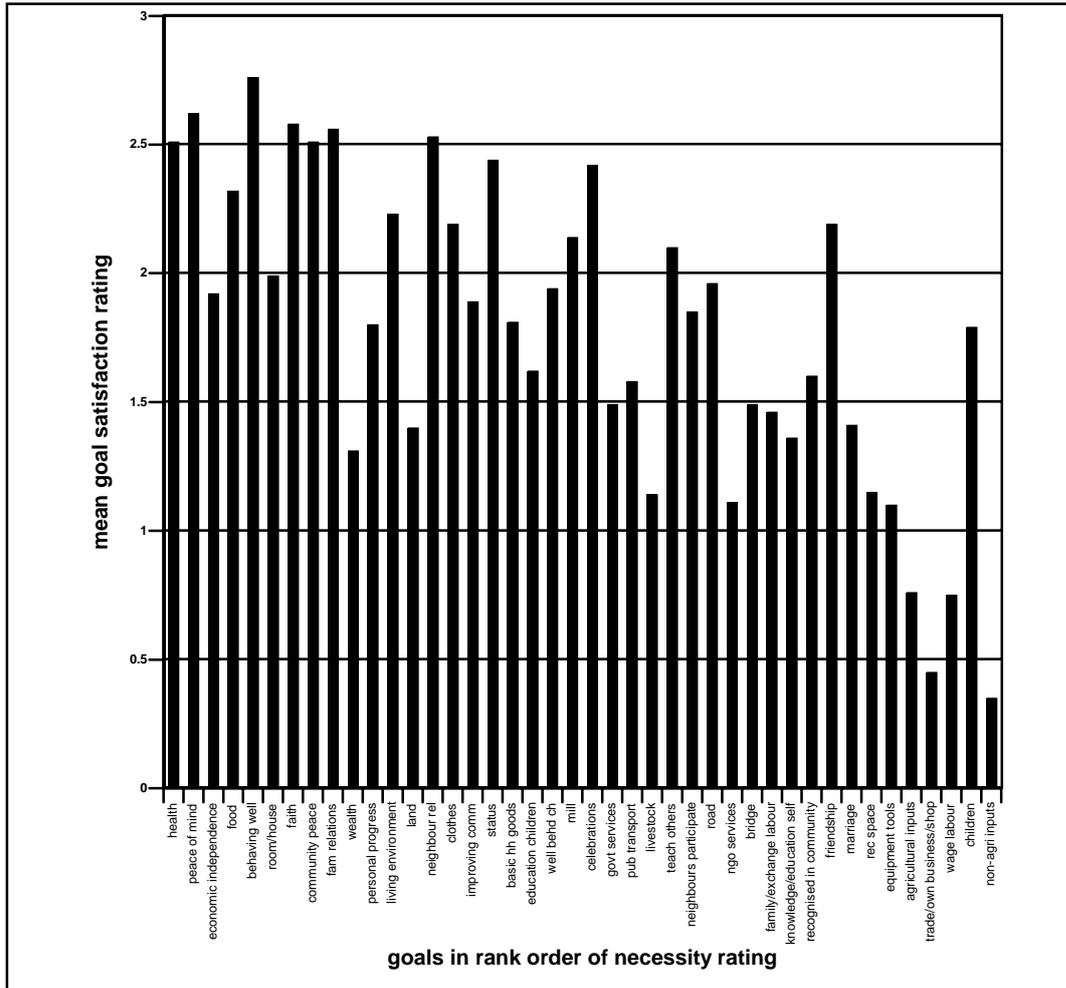
Figure 1b Goal satisfaction in Bangladesh
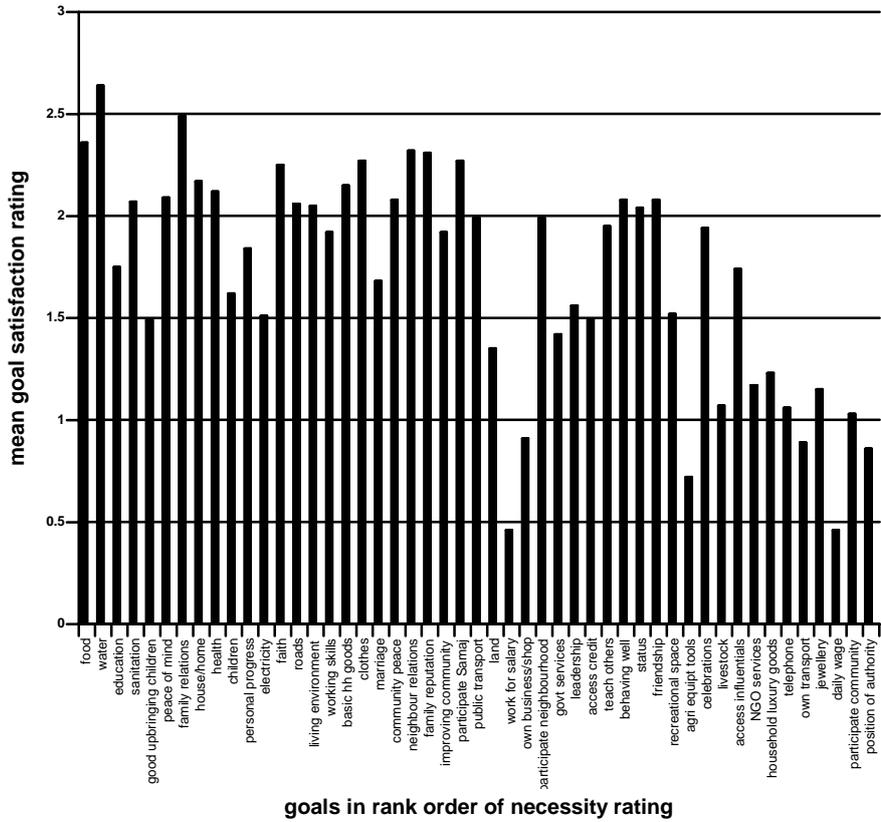
Figure 1c Goal satisfaction in Thailand
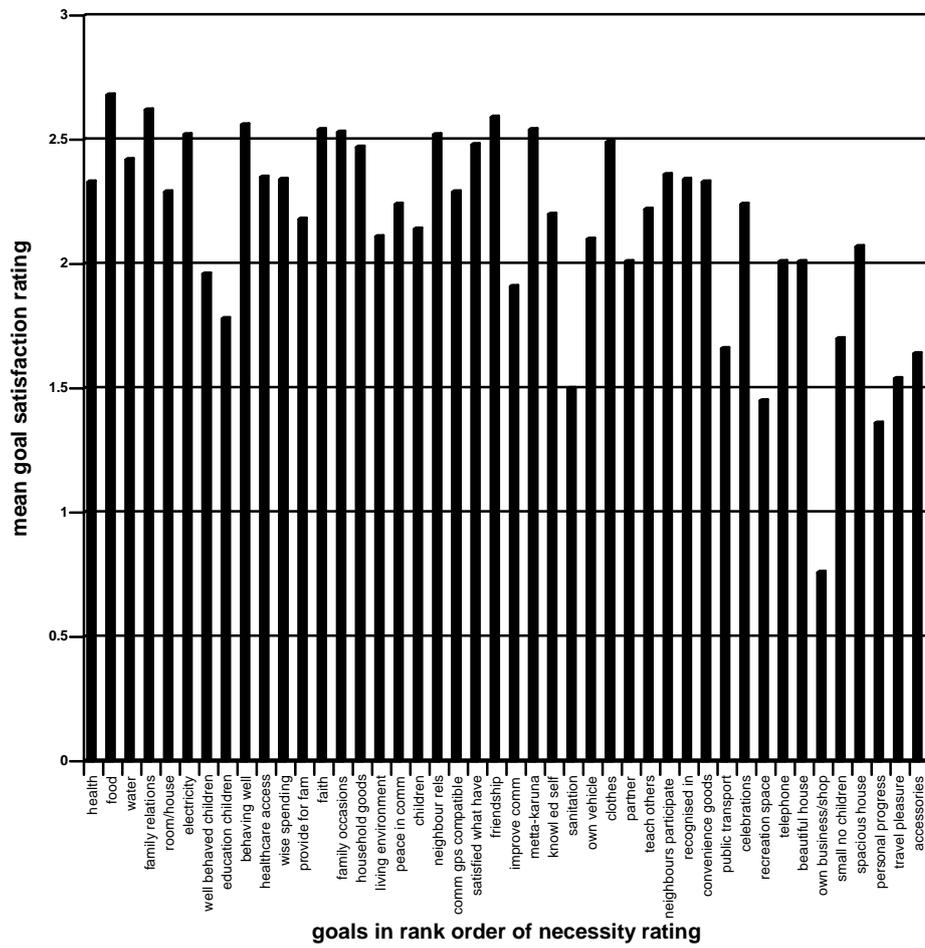
Figure 1d Goal satisfaction in Peru
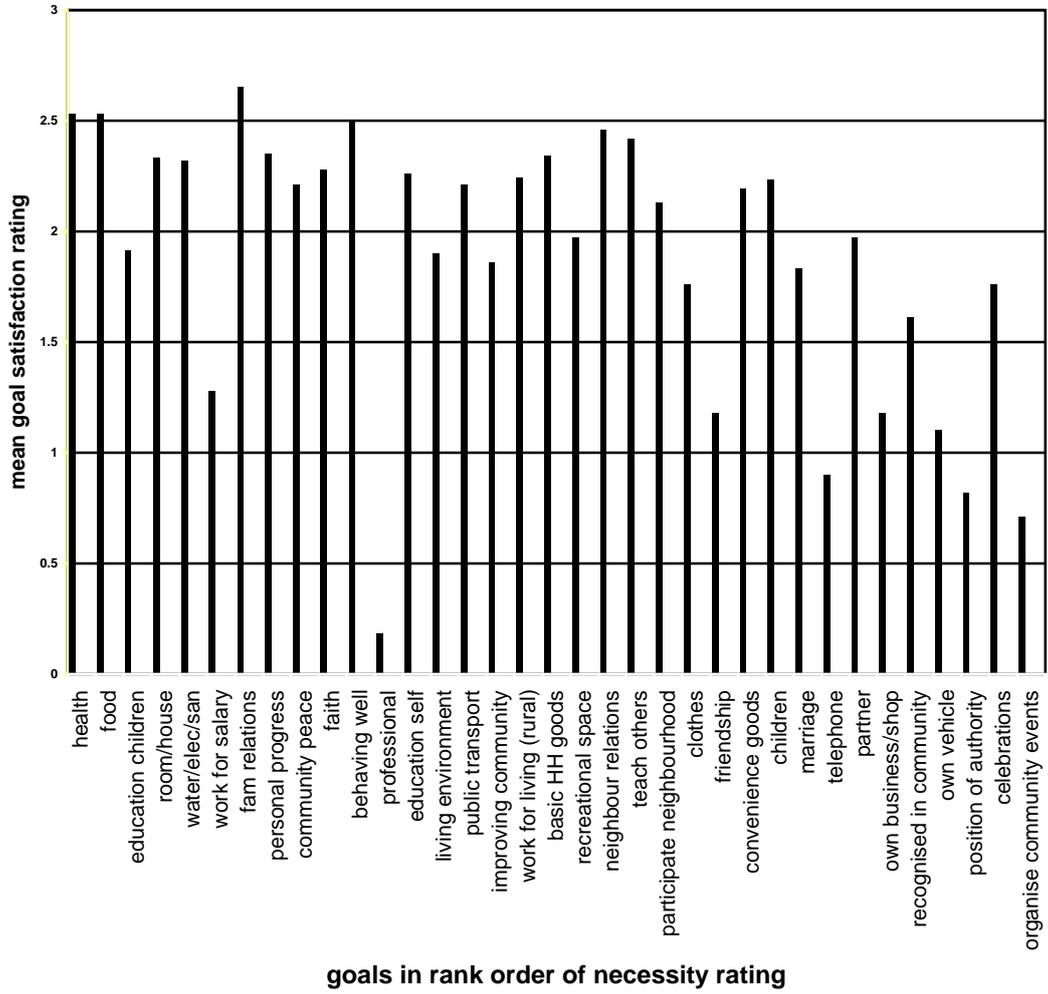
Figures 1a-1d illustrate gaps in goal satisfaction in the four countries, highlighting areas where people's wellbeing might be under threat. They also suggest that necessity and satisfaction are separate constructs that require separate measurement, despite the existence of cognitive mechanisms such as adaptation. In other words, people do not automatically reframe things that they are not satisfied with as unnecessary. In Ethiopia, the clearest gaps are in the areas of material resources, such as wealth and land. The reported satisfaction with health is consistent with other studies, but perhaps less so with objective measures. For example, according to the 2007/8 Human Development Report a third of Ethiopians will not survive past age 40. The largest gaps in Bangladesh and Thailand cover goals related to their children's future, including education and children's upbringing. This perhaps indicates discomfort with rapid economic and social changes, where family relationships are both important and strong (see Jongudomkarn and Camfield 2006; Camfield *et al.* 2007). [8] In Peru, goals such as working for a salary and being a professional are far more important than in other countries, despite being largely unsatisfied.

*3.2 Creation of the WeDQoL weighted goal satisfaction scales*

Once the data had been cleaned, an individualised goal attainment score was created for each item by multiplying the goal satisfaction score by the goal necessity score. [9] The goal attainment scores were factor analysed (Kline, 1993) to identify the underlying constructs and analyses were conducted until a solution was found with the smallest possible number of unique factors, which also made sense in the specific cultural context. In three of the four countries, the solutions were discussed with local researchers to determine the extent to which the groupings suggested by the data made sense in their context and reflected ways in which people in these communities had described their lives in qualitative interviews conducted eight months previously. [10] Further psychometric analyses were conducted to determine the

---

[8] Another possible explanation is that both samples have a relatively large proportion of young respondents who may agree that these goals are important without having had the opportunity to attain them yet. If these respondents are confident that they will be able to do so in the future, this 'gap' may not affect their subjective wellbeing.

[9] The possible range was 0-6. Individualised Goal Attainment scores were computed as the mean of only those items applicable to that individual so an aspect of life considered 'not necessary' would not contribute to a person's score. Woodcock et al. (2008) describe the analytical procedure in full.

[10] This did not happen in Peru, because the Peruvian team were working on a related measure (described in the following section) with different components to enable a deep and context-specific understanding of subjective well-being. For this reason the factor names for Peru are tentative.

internal reliability of the scales and subscales identified by the factor analysis. The Appendix sets out the psychometric properties of the weighted goal attainment subscales in the four countries.

*3.3 Weighted goal satisfaction, life satisfaction and affect scores across countries*

Table 4 reports the mean scores for weighted goal satisfaction for the total items applied in each country and the 'core' items applied across all four countries, and for positive and negative affect (PANAS, Watson *et al.* 1998), and life satisfaction (SWLS, Diener *et al.* 1985). The highest goal attainment scores are in Ethiopia; this may reflect a genuine difference, a difference in response patterns (e.g. a positivity bias), or the greater salience of the items in a predominantly rural context. Bangladesh report the highest life satisfaction, which is consistent with previous WeD research where people seemed reluctant to say that they were dissatisfied, possibly because this could be seen as showing a lack of respect to Allah (e.g. Devine *et al.* 2007). Bangladesh also had the highest negative affect, while Peru had both significantly lower negative affect than the other countries and higher positive affect.

**Table 4**: Four country scores for weighted goal satisfaction (total and 'core' items), positive and negative affect, and satisfaction with life as a whole

|  | Ethiopia n=360 | Bangladesh n=373 | Peru n=547 | Thailand n=369 |
|---|---|---|---|---|
| Weighted Goal Attainment (total) /6 | 3.26 (sd 0.87) | 2.80 (sd 0.79) | 3.23 (sd 0.74) | 3.64 (sd 0.88) |
| Weighted Goal Attainment (common core) /6 | 3.54 (sd 0.86) | 3.02 (sd 0.83) | 3.27 (sd 0.75) | 3.68 (sd 0.88) |
| Life Satisfaction /15 | 10.03 (sd 3.39) | 10.40 (sd 2.59) | 9.39 (sd 2.08) | 9.55 (sd 3.00) |
| Positive affect /50 | 32.11 (sd 6.00) | 30.03 (sd 6.34) | 33.49 (sd 5.19) | 31.22 (sd 5.81) |
| Negative affect /50 | 23.83 (sd 6.46) | 24.98 (sd 6.89) | 21.67 (sd 6.83) | 23.77 (sd 6.80) |

*3.4 Weighted goal satisfaction, life satisfaction and affect scores across subgroups within countries*

Table 5 also reports scores for weighted goal satisfaction, affect, and life satisfaction in each country for the sub-groups of rural and peri-urban or urban communities, with the significance of difference between them tested using independent samples t-tests. Goal satisfaction of both total and core items showed highly significant differences in all countries. While in Thailand and Peru the rural sites score higher than the urban, Bangladesh and

Ethiopia showed ascending satisfaction from rural to urban with Ethiopia scoring higher overall). There were also significant differences in positive and negative affect in everywhere except Peru, and highly significant differences for life satisfaction in Bangladesh, favouring respondents in peri-urban or urban sites.

**Table 5: Four country scores for weighted goal satisfaction, PANAS, and SWLS by location (rural vs. peri-urban and urban)**

| | | Bangladesh | Ethiopia | Peru | Thailand |
|---|---|---|---|---|---|
| Weighted Goal Attainment (total) /6 | Rural | n=124 2.43** (sd 0.67) | n=245 3.17* (sd 0.87) | n=150 3.49** (sd 1.02) | n=153 2.21** (sd 0.35) |
| | Peri-urban & urban | n=249 2.99** (sd 0.78) | n=126 3.45* (sd 0.83) | n=400 3.13** (sd 0.56) | n=216 2.10** (sd 0.36) |
| Weighted Goal Attainment (common core)/6 | Rural | n=124 2.57** (sd 0.72) | n=245 3.40 (sd 0.83) | n=150 3.54** (sd 1.04) | n=153 2.22** (sd 0.32) |
| | Peri-urban & urban | n=249 3.24** (sd 1.79) | n=126 3.78 (sd 0.87) | n=400 3.17** (sd 0.56) | n=216 2.11** (sd 0.35) |
| Positive affect /50 | Rural | n=124 30.98 (sd 5.69) | n=233 30.72** (sd 5.58) | n=89 34.53 (sd 4.74) | n=153 30.91 (sd 5.66) |
| | Peri-urban & urban | n=249 29.56** (sd 6.60) | n=126 34.69** (sd 5.94) | n=235 33.10 (sd 5.30) | n=216 31.45 (sd 5.91) |
| Negative affect /50 | Rural | n=124 26.85** (sd 7.01) | n=235 24.61 (sd 6.26) | n=90 20.99 (sd 6.61) | n=153 22.37* (sd 6.48) |
| | Peri-urban & urban | n=249 24.04 (sd 6.65) | n=125 22.37 (sd 6.61) | n=236 21.94 (sd 6.91) | n=216 24.76* (sd 6.85) |
| Life Satisfaction /15 | Rural | n=124 9.51** (sd 2.70) | n=245 9.90 (sd 3.41) | n=90 8.40 (sd 1.73) | n=152 9.05 (sd 3.01) |
| | Peri-urban & urban | n=249 10.85** (sd 2.41) | n=125 10.30 (sd 3.34) | n=237 9.76 (sd 2.08) | n=216 9.91 (sd 2.95) |

** $p = <0.001$     *$p = <0.01$

Table 6 reports scores for weighted goal satisfaction, affect, and life satisfaction in each country for the sub-groups of poor and non-poor.[11] In all countries non-poor respondents had higher goal attainment scores than poor respondents, although the differences were not always large or significant. There were significant differences in goal satisfaction between poor and

---

[11] Poor and non-poor were categorised using the relative household wealth variable in the RANQ, non-poor=categories 1 to 4, poor = 5 to 7 (the samples in Ethiopia and Peru are smaller as some respondents to the WeDQoL were not from RANQ households).

non-poor in Ethiopia and Thailand, but not in Bangladesh, possibly due to the problems finding a reliable self-report measure for socio-economic status, or Peru, due to the relatively small number of people describing themselves as poorer than average. In Thailand poor people reported significantly higher negative affect but also higher satisfaction with life (poor people reported higher life satisfaction in Ethiopia and Peru, but the difference was not significant).

**Table 6: Four country scores for weighted goal satisfaction, PANAS, and SWLS by socio-economic status (poor vs. non-poor)**

| | | Bangladesh | Ethiopia | Peru | Thailand |
|---|---|---|---|---|---|
| Weighted Goal Attainment (total)/6 | Poor | n=147 2.75 (sd 0.78) | n=131 3.06* (sd 0.84) | n=36 3.24 (sd 0.63) | n=142 3.45* (sd 0.89) |
| | Non-poor | n=226 2.84 (sd 0.80) | n=187 3.35* (sd 0.85) | n=215 3.34 (sd 0.79) | n=227 3.77* (sd 0.84) |
| Weighted Goal Attainment (common core) /6 | Poor | n=147 2.98 (sd 0.81) | n=131 3.37 (sd 0.86) | n=36 3.27 (sd 0.63) | n=142 3.51 (sd 0.89) |
| | Non-poor | n=226 3.04 (sd 0.84) | n=187 3.59 (sd 0.81) | n=215 3.38 (sd 0.80) | n=227 3.79 (sd 0.86) |
| Positive affect /50 | Poor | n=147 29.26 (sd 6.71) | n=128 31.75 (sd 6.57) | n=21 34.71 (sd 4.37) | n=142 30.87 (sd 6.37) |
| | Non-poor | n=226 30.54 (sd 6.05) | n=180 32.34 (sd 5.50) | n=138 33.58 (sd 5.36) | n=227 31.44 (sd 5.44) |
| Negative affect /50 | Poor | n=147 24.49 (sd 6.82) | n=128 24.80 (sd 6.21) | n=21 24.95 (sd 6.12) | n=142 25.32** (sd 7.17) |
| | Non-poor | n=226 25.29 (sd 6.94) | n=180 23.69 (sd 6.31) | n=137 21.08 (sd 7.16) | n=227 22.80** (sd 6.38) |
| Life Satisfaction /15 | Poor | n=147 10.33 (sd 2.50) | n=131 10.50 (sd 3.37) | n=21 10.29 (sd 1.90) | n=142 10.43** (sd 2.91) |
| | Non-poor | n=226 10.45 (sd 2.65) | n=187 9.77 (sd 3.40) | n=138 9.37 (sd 2.05) | n=227 9.00** (sd 2.93) |

** p=<0.001        *p=<0.01

Table 7 reports scores for weighted goal satisfaction, affect, and life satisfaction in each country for men and women. While there were no significant differences for goal satisfaction or satisfaction with life, in all countries women reported lower positive and higher negative affect scores, and these were significant in Ethiopia and Bangladesh (lower positive affect), and Thailand and Peru (higher negative affect).

**Table 7**: **Four country scores for weighted goal satisfaction, PANAS, and SWLS by gender (male vs. female)**

|  |  | Bangladesh | Ethiopia | Peru | Thailand |
|---|---|---|---|---|---|
| Weighted Goal Attainment (total) /6 | Male | n=193 2.88 (sd 0.77) | n=185 3.25 (sd 0.85) | n=248 3.25 (sd 0.76) | n=169 3.73 (sd 0.88) |
|  | Female | n=180 2.72 (sd 0.80) | n=186 3.27 (sd 0.88) | n=299 3.21 (sd=0.71) | n=200 3.57 (sd 0.87) |
| Weighted Goal Attainment (common core) /6 | Male | n=193 3.08 (sd 0.82) | n=185 3.55 (sd 0.88) | n=248 3.29 (sd=0.77) | n=169 3.77 (sd 0.87) |
|  | Female | n=180 2.94 (sd 0.83) | n=186 3.53 (sd 0.84) | n=299 3.25 (sd=0.73) | n=200 3.67 (sd 0.87) |
| Positive affect /50 | Male | n=193 31.31** (sd 6.47) | n=177 33.33** (sd 5.30) | n=159 33.89 (sd 5.55) | n=169 31.94 (sd 5.67) |
|  | Female | n=180 28.66** (sd 5.92) | n=182 30.92** (sd 6.41) | n=163 33.12 (sd 4.82) | n=200 30.62 (sd 5.87) |
| Negative affect /50 | Male | n=193 23.98 (sd 6.33) | n=178 23.76 (sd 6.09) | n=161 20.24** (sd 6.06) | n=169 21.83** (sd 6.38) |
|  | Female | n=180 26.04 (sd 7.32) | n=182 23.90 (sd 6.83) | n=163 23.08** (sd 7.26) | n=200 25.41** (sd 6.72) |
| Life Satisfaction /15 | Male | n=193 10.60 (sd 2.61) | n=184 10.39 (sd 3.34) | n=161 9.46 (sd 2.20) | n=168 9.39 (sd 2.86) |
|  | Female | n=180 10.20 (sd 2.56) | n=186 9.68 (sd 3.41) | n=164 9.33 (sd 1.98) | n=200 9.69 (sd 3.00) |

** $p = < 0.001$      * $p = < 0.01$

In summary, while there were significant differences in goal satisfaction between rural and peri-urban/urban sites in all countries, these did not follow a consistent pattern as they favoured rural sites in the more prosperous countries of Peru and Thailand, and peri-urban or urban sites in Bangladesh and Ethiopia. There were significant differences in goal satisfaction between poor and non-poor in Thailand and Ethiopia, but not in Bangladesh, for the reasons explained earlier. There were no significant differences between men and women. Differences in life satisfaction between rural and peri-urban/urban sites were only significant in Bangladesh, and there were no significant differences in life satisfaction between men and women. Only Thailand showed significant differences in life satisfaction between poor and non-poor, perhaps unexpectedly favouring the poor, although this may reflect the higher life satisfaction scores of rural Thais. There were some significant differences for positive and

negative affect (e.g. between rural and peri-urban/ urban sites in all countries except Peru, and for poor people in Thailand), but these were not consistent between countries.

## 4. Additional findings arising from further elaboration of the WeDQoL in Peru

This section provides a brief review of how the WeD Peru team, led by Jorge Yamamoto, developed the WeDQoL methodology in a distinctive way, and used it to develop a structural equation model. Yamamoto *et al.* (2008), Yamamoto (2008), and Yamamoto & Feijoo (2007) describe the approach in more detail. In parallel with the other countries, the first step in this analysis was to use factor analysis to identify underlying life goals underpinning responses to each specific goal question. These were interpreted as the shared *latent needs* of the respondents and of the broader community from which they were drawn: 'needs' being empirically derived from the importance attached by respondents to particular goals, rather than identified *a priori* from a universal theory. Satisfaction with achievement of each latent need was further investigated by estimating a structural equation model that related such satisfaction to the importance attached to each latent need, perceived availability of resources, prevailing values and personality (the latter requiring use of an additional adapted scale). These models were then combined into an overarching context-specific empirical model of subjective wellbeing.

The scales for perceived resources, values and personality were also subjected to factor analysis to identify the principal components of each, and these factors were incorporated into the structural equation models. In contrast, satisfaction with goal achievement was not subjected to separate factor analysis. Instead, the preferred factor solution for goal importance was applied to the satisfaction data also. This was possible because the goal and goal satisfaction questions were based on the same list of items: the only difference being whether respondents were asked how important each goal was or how satisfied they were with its achievement.[12] In addition to standard statistical measures of goodness of fit, two additional criteria influenced selection of factor solutions for each scale. First, alternative solutions were presented to the field team who discussed those that made most sense in relation to the qualitative data collected in other components of the research, as well as their in-depth

---

[12] In effect this meant that goal satisfaction scores for each respondent were based on uniform weights that reflected a single, shared view of the relative importance of different life goals derived from the responses of the whole sample.

knowledge of the communities being studied. Second, solutions were selected to enhance the overall statistical properties of simultaneous equations linking them to other variables in a single structural model.[13] In other words, an iterative process of qualitative and quantitative research was used to identify an *emic* factor structure for each wellbeing component, while at the same time integrating all the pieces into a single model.

### 4.1 Components of the model

The WeD Peru model of SWB sought to combine five components. First, specific goals were viewed by the Peru team as reflecting underlying *latent needs* for living well in the selected context.[14] The goals or latent needs that resonated most strongly with qualitative data while contributing at the same time to a robust structural equation model was based on confirmatory factor analysis with three distinct components: 'place to live better' (PLB), 'raise a family' (RAF), and 'improvement with a secure base' (ISB). PLB was linked to three goals: nice and clean neighborhood, tranquility (without violence or delinquency), and *salir adelante* (able to move ahead in the sense of resolving local problems). RAF was linked to two goals (partner/marriage and children), and ISB to having a salaried job, household goods, children's education, daily food and health, and better education.[15]

Second, *latent need satisfaction* was conceptualised as arising from the gap between the importance attached to each and perceived achievement. Satisfaction relative to each latent need was calculated using the weights attached to each from the three factor model of goal importance. High subjective wellbeing can thereby arise from attaching less importance to goals as well as through high perceived achievement of them. Third, *resources* were defined as perceived availability of means required for goal achievement. The resource scale was derived from a comprehensive list of resources obtained from respondents during the qualitative phase of the research, but any item that was also an end in itself and therefore

---

[13] This approach responds to Nesse (2005:8), who wrote: 'we now have [an extraordinary knowledge base] on factors that influence SWB. But what are we to do with all this information? We need a model. All the variables studied and their connections need to be incorporated into a path diagram so we can see their inter-relationships.'

[14] The context of the Peru resarch consisted of seven poor communities in Central Peru, stretching from Lima in the east, to the rural areas of Junin and Huancavelica in the west (see Copestake, 2008 for a detailed description).

[15] The names of these and other factors were agreed after extensive consultation with the field team responsible for primary data collection in order to be sure that they reflected the items loading onto them and were consistent with qualitative data.

appeared in the goal satisfaction scale was excluded. Seven items loaded onto the preferred single factor solution: to get loans, to rent/lease land, saving, migration, inheritance, useful social contacts (in terms of getting work, things, services), and *gestiones* (ability to secure support from organizations to help in such things as gaining access to electricity or water supply).

Fourth, individual's goals and need perception are influenced by their cultural context, which is taken to include *values* prevailing in the networks and communities to which they belong. To encourage respondents to be more open and realistic, they were asked about the prevailing values of people in their locality, as well as their own values. Following this methodology a robust two factor solution was obtained. These factors were labelled collectivism and individualism. Although these were significantly and negatively correlated this does not mean they represent poles at opposite ends of the same continuum, as it is possible to score highly on individualism and collectivism at the same time. Collectivism has three indicators: to offer support and advice, to share, and to progress through participation in neighbourhood activities. Compliance with these values was neither seen as purely altruistic nor solely as a means to other ends; rather reciprocity was implicit and open-ended. Individualism had two indicators: envy and selfishness.

Fifth, *personality r*efers to enduring traits that characterise how individuals behave, and many studies indicate that it also influences subjective wellbeing (e.g. DeNeve 1999). Lack of resources prevented extension of the WeD qualitative work to include development of a native scale for investigating personality, so an adaptation of the Goldberg personality scale to urban-marginal contexts of Peru was used instead. To explore alternative personality structures, factor analysis was used in the same way as for the other scales discussed above.[16] This led to selection of a three factor model, the factors being labelled *Mosca, Buena onda,* and Sociable-Warm. The literal translation of *Mosca* is 'fly', but it is also a colloquial Peruvian word for someone having a quick, sharp mind. Four items loaded onto this factor: self-confidence, perceptiveness, pragmatism and being analytical. This reflects awareness of the environment, quick reactions and survival skills, rather than abstract intelligence, and it is

---

[16] Confirmatory factor analysis did not support adoption of the widely used five-factor personality model of Costa and McRae, confirming that its applicability to non-Western cultural contexts is not established (Triandis & Suh 2002). See Yamamoto *et al.* (2008) for a discussion of how it relates to the *emic* three-factor model discussed here.

interpreted as being morally neutral. *Buena onda* refers to having a resilient positive attitude towards life: permanent good mood, enthusiastic, looking for the positive side of things and not dull in perception; also a good sense of humour, and absence of neurosis. The term is a high form of praise - more so in many situations even than intelligence and moral virtue. Four items load onto it: flexible, well organized, *desprendido* (not-materialistic) and generous. *Buena onda* is more than an agreeable person; it assumes generosity and the absence of selfishness. It also refers to someone who is intentionally agreeable rather than charming in an unstructured way. Flexibility could be seen as an important component of good relations in a multicultural context. Sociable-Warm derived from three items: warm, sociable/shy and sociable/reserved. It correlates with *Buena onda*, but the latter refers more to the intensity of interpersonal relations than their quality; a person who is *Buena onda* can still be more open or closed.

*4.2 Structural equation models for latent need satisfaction*

So far this section has described how the Peru team empirically identified three latent needs, as well as a set of factors thought likely to influence satisfaction with their achievement. The next step is to present the path diagrams used to analyse determinants of satisfaction with each need. All the regression weights and co-variances in the models to be presented below are significant ($p < 0.05$ or better), and all models show a significant fit ($p < 0.01$ or better). The numbers shown in the diagrams below are standardized coefficients. Attempts to construct models based on mean responses from each scale, rather than for each principal component, did not yield significant results. This illustrates the complexity of the task of understanding subjective wellbeing.

The path diagram in Figure 2 shows an integrative model for quality of PLB that produced a good fit *[chi$^2$ (9, N=330)=13.644, p=0.136, CFI=0.983, RMSEA=0.040]*. PLB achievement is directly associated with four observed variables, and indirectly with two others. Figures 3 and 4 display similar models for RAF and ISB satisfaction.[17] The measured correlations between variables in each case can be interpreted in various ways, but it is beyond the scope of this paper to do so. In addition to providing such explanations, Yamamoto et al. (2008) also provide an integrated model of subjective wellbeing that combines the three partial quality of

---

[17] RAF is also negatively associated with Resources, and only when this path is introduced does the model fit become significant *[chi$^2$ (9, N=330)=15.196, p =0.086, CFI=0.977, RMSEA=0.046]*. The path model depicted in Figure 4 for ISB satisfaction also revealed a good fit *[chi$^2$ (11, N=330)=16.658, p=0.118, CFI =0.963, RMSEA=0.040]*.

life models below. While this highlighted additional connections it did not alter the structure of the three separate models and so is not shown.

ISB latent need can be viewed as corresponding closely with the Western idea of development, and suggests a desire to be part of a modernization process (subject to not having to risk too much). Satisfaction with achievement of ISB among respondents was generally low, as might be expected given their relative material poverty (Copestake *et al.* forthcoming). Rather surprisingly, RAF importance has a direct positive influence on ISB achievement. One explanation for this is that giving more importance to raising a family lowers people's frustration with failure to achieve modernisation goals, as it puts such goals into wider perspective. Less surprisingly, a positive association exists between this variable and Resources. This also acts as a link through which ISB goal importance affects ISB achievement: the more important this goal, the more resources a person is likely to command and the more satisfied with achievement.

**Figure 2** Path model for 'place to live better'
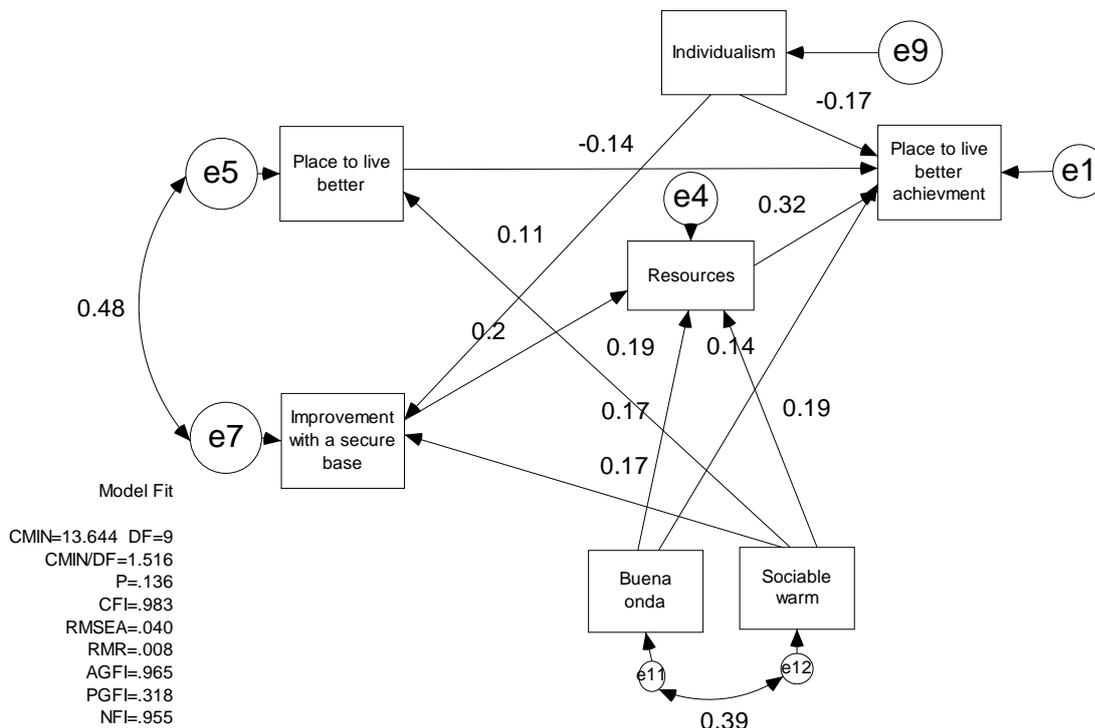
**Figure 3** Path model for 'raising a family'
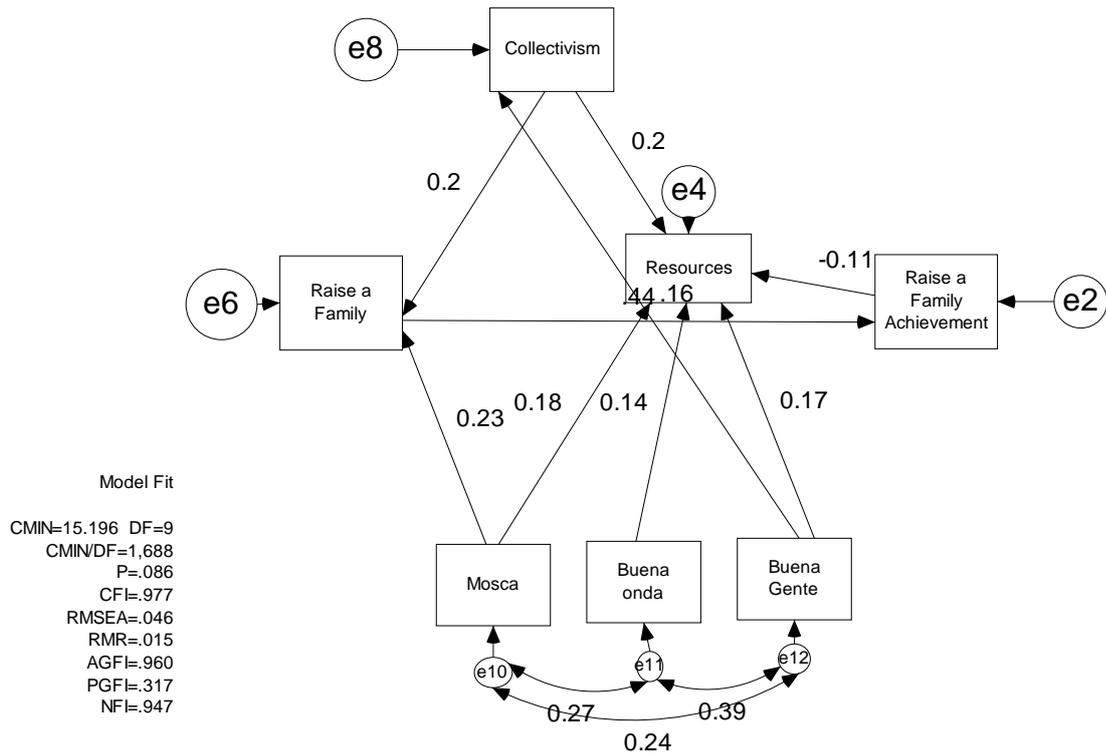


**Figure 4** Path model for 'improvement from a secure base'
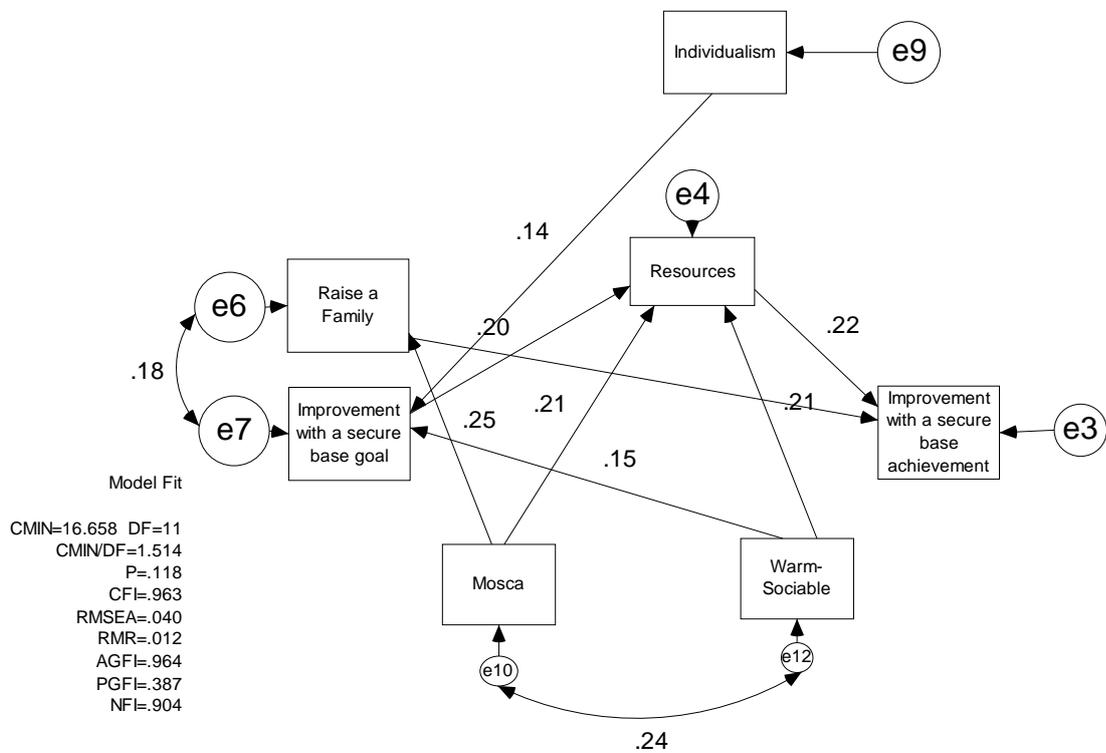
*4.3 Final comments*

The work of the WeD Peru team presented in this section offers a methodology for inductive identification and analysis of the components of wellbeing that minimises reliance on the ideas (and values) of outsiders in selection and classification of items.[18] In the specific case of the sample of respondents covered by the WeD research it yielded a profound analysis of the complex trade-offs in pursuit and achievement of latent needs particularly those arising from migration. Respondents living in urban areas often achieved higher SWB in terms of improvement from a secure base, but at a cost of lower achievement of raise a family and place to live better.[19]

With respect to policy, this kind of analysis can be useful in identifying congruence and disjuncture between communities and intervening agencies in the value attached to different development means and ends – and indeed the extent to which means and ends are distinguished. For example, the WeDQoL has already been used by NGOs in Peruvian Amazonia to seek a deeper understanding of subjective wellbeing of indigenous communities, as well as to explore SWB among rich urban people (Yamamoto, 2008). The approach can also be applied to much larger populations through development of scales that sacrifice local specificity in goal and latent need identification by relying on a smaller set of items that are shared across a more heterogeneous population, as was done with the core items that were used across all four countries, although it proved impossible to generate a universal factor structure. As with the WHOQOL, it is possible to conceive of national scales based on this template being used to monitor changes in SWB between regions as well as over time, with the difference that latent need and subjective wellbeing structure is defined empirically using data for each country, rather than through a negotiated adjustment of an established international standard.

## 5. Conclusions: Potential benefits of a SWB approach

An important motive for the work reported in this article was to contribute to innovation in the collection and analysis of data to guide the actions of agencies involved in the delivery of public policies, programmes and projects with explicit development goals, be they

---

[18] Of course some external influence is unavoidable. Importantly, in this case, it does include the assumption that SWB can usefully be approached through the idea of a perceived resource constrained gap between goal and achievement, and is influenced also by prevailing values and personality.

[19] This is analysed further in Copestake (2008).

international donors, national governments or non-government agencies. Regardless of their formal mission and mode of operation, their performance relies in part on how well they understand what intended beneficiaries need and want most. This paper points towards methods of finding this out that allow people to describe their wellbeing as far as possible in their own terms, as well as in ways that permit aggregation and can be subjected to rigorous analysis. We have also emphasised the potential for relying on individual respondents' own perception of different aspects of their wellbeing, rather than on potentially observable and therefore mostly material proxy indicators of their wellbeing as identified by others. This emphasis on what people think and feel differs sharply from household-level surveys that emphasise what people say they have and do, rather than what they think and feel. The emphasis on individuals and on quantification also sets the approach apart from collective and participatory appraisal methods. We have not argued that a SWB approach is necessarily better that these alternatives but we do suggest that it can play a complementary role in many situations, including work on what should guide development policy beyond the millennium development goals.

Second, the paper suggests scope for greatly extending the range and use of methods for eliciting individuals' views about wellbeing and development. While Section 3 demonstrated how the WeDQoL can be used to generate comparable data at the country level, Section 4 demonstrated its potential as a diagnostic tool for understanding the complex psychological and cultural determinants of wellbeing among relatively poor people in a particular region. Use of the WeDQoL has so far been limited and further development is needed. But it nevertheless illustrates the potential for further extension of the more established repertoire of SWB instruments beyond those developed primarily through research with more educated and affluent respondents and without use to inform policy in developing country contexts in mind.

## Bibliography

Barahona, Carlos, & S. Levy (2003), 'How to Generate Statistics and Influence Policy using Participatory Methods in Research: Reflections on Work in Malawi 1999-2002', *Working Paper No 212*, Brighton: Institute of Development Studies.

Bertrand , M. and S. Mullainathan (2001), 'Do People Mean What They Say? Implications for Subjective Survey Data', *The American Economic Review* 91(2): 67–72.

Bradburn, Norman M. (1969), *The Structure of Psychological Well-Being,* Chicago: Aldine.

Campbell, Angus, Philip E. Converse and Willard L. Rogers (1976), *The Quality of American Life: Perceptions, Evaluations, and Satisfactions,* New York: Russel Sage

Camfield, Laura (2006), 'The why and how of understanding 'subjective' wellbeing: Exploratory work by the WeD Group in four developing countries', *Working Paper 26*, Wellbeing in Developing Countries Research Group, University of Bath.

Camfield, Laura, Choudhury, Kaneta, and Devine, Joe (2009), 'Well-being, Happiness and Why Relationships Matter: Evidence from Bangladesh', *Journal of Happiness Studies*, 10: 71–91.

Camfield, Laura, Suzie M Skevington (2008), 'On Subjective Well-Being and Quality of Life', *Journal of Health Psychology*, 13: 764-775.

Camfield, Laura and Teresa King (2006), 'The WeDQoL instrument'. Electronic citation, www.bath.ac.uk/econ-dev/wellbeing/research/methods-toobox/qol-toolbox.htm.

Cantril, Hadley (19650, *The pattern of human concerns,* New Brunswick, NJ: Rutgers University Press

Carvalho, Soniya & Howard White (1997), 'Combining the Quantitative and Qualitative Approaches to Poverty Measurement and Analysis', *World Bank Technical Paper Number 366*, Washington, DC: World Bank

Christopher, James C. (1999), 'Situating psychological wellbeing: Exploring the cultural roots of its theory and research', *Journal of Counseling & Development*, 77: 141-152.

Clark, David A. (2002), *Visions of development*, Cheltenham: Edward Elgar.

Clark, David A. (2007), 'Adaptation, Poverty and Well-Being: Some Issues and Observations with Special Reference to the Capability Approach and Development Studies', *GPRG-WPS-081*.

Collard, David (2006), 'Research on Well-Being. Some Advice from Jeremy Bentham', *Philosophy of the Social Sciences*, 36 (3): 330-354.

Copestake, James (ed) (2008), *Wellbeing and development in Peru: global and local views confronted*, New York: Palgrave Macmillan

Copestake, James, Guillen-Royo, Monica, Chou, Wan J., Hinks, Tim, and Velazco, Jackie (2008), 'Economic and subjective wellbeing', in Copestake, J (ed.), *Wellbeing and development in Peru: global and local views confronted,* New York: Palgrave Macmillan

Cornwall, Andrea and Fujita, Mamoru (2007), 'The politics of representing "the poor"', in Moncrieffe and R. Eyben (eds) *The Power of Labelling. How people are Categorised and Why it Matters*, London: Earthscan.

Cummins, Robert A. (2000), 'Personal income and subjective well-being: A review', *Journal of Happiness Studies,* 1(2): 133-158.

DeNeve, Kristina M. (1999), 'Happy as an extraverted clam? The role of personality for subjective well-being', *Current Directions in Psychological Science*, 8(5): 141-144.

Deneulin Séverine and Nick Townsend (2006), 'Public goods, global public goods and common good', *Working Paper 18.* Bath, Wellbeing in Developing Countries Research Group, University of Bath.

Devine, Joe, Camfield, Laura, and Gough, Ian (2007), 'Autonomy or Dependence – or Both? Perspectives from Bangladesh', *Journal of Happiness Studies*, 9(1): 105-138.

Diener, Ed, Emmons R, Larsen, R, and Griffin S. (1985), 'The satisfaction with life scale', *Journal of Personality Assessment* 49(1):71-73.

Diener, Ed., M. Diener, and Carol Diener (1995), 'Factors predicting the subjective well-being of nations', *Journal of Personality and Social Psychology* 69 (5):851-864.

Doyal, Len and Ian Gough (1991), *A theory of human need*, Basingstoke: Macmillan

Easterlin, Richard A. (1974), 'Does Economic Growth Improve the Human Lot? Some Empirical Evidence', in P. A. David and M. W. Reder (eds) *Nations and Households in Economic Growth*, Academic Press.

Engels, Frederick (1893), 'Letter to Mehring'. Marxists internet archive. Electronic Citation, Accessed 30-6-2007. www.marxists.org/archive/mehring/1893/histmat/app.htm

Graham Carol and Stefano Pettinato (2002), *Happiness and hardship,* Washington: Brookings Institution Press.

Hickey, Sam and Sarah Bracking (2005), 'Exploring the politics of chronic poverty: from representation to the politics of justice?', *World Development* 33:851-866.

Jongudomkarn, Darunee, and Laura Camfield (2006), 'Exploring the Quality of Life of People in North Eastern and Southern Thailand', *Social Indicators Research*, 78, 489-530.

Kline, P. (1993), *The handbook of psychological testing*, New York: Routledge

Lyubomirsky, Sonja, Laura King, and Ed Diener (2005), 'The benefits of frequent positive affect: Does happiness lead to success?', *Psychological Bulletin* 131(6): 803-855.

McGregor, J. Allister (2007), 'Researching wellbeing: From concepts to methodology', in Gough I, J. Allister McGregor (eds), *Wellbeing in Developing Countries: from theory to research,* Cambridge: Cambridge University Press

McGregor, James A., McKay, Andy, & Velazco, Jackie (2007), 'Needs and resources in the investigation of well-being in developing countries: illustrative evidence from Bangladesh and Peru', *Journal of Economic Methodology*, 14, 107-131.

Moris, Jon and James Copestake (1993), *Qualitative enquiry for rural development,* London: ODI / IT Publications

Nesse, Randolph (2005), 'Natural selection and the elusiveness of happiness', in Huppert, F., Baylis, N. and B. Keverne (eds), *The science of well-being*, New York: Oxford University Press

Rojas Mario (2007), 'The complexity of wellbeing: a life-satisfaction conception and a domains-of-life approach', in Gough I, J. Allister McGregor (eds) *Wellbeing in Developing Countries: from theory to research,* Cambridge: Cambridge University Press (p259-280).

Ruta, Danny A. (1998), 'Patient generated assessment: The next generation', *MAPI Quality of Life Newsletter* 20: 461-489

Ruta, Danny A., Andrew M. Garratt, and Leng M (1994), 'A new approach to the measurement of QoL: The Patient-Generated Index (PGI)', *MedicalCare* 32: 1109-1126.

Ruta Danny A, Camfield, Laura, and Martin, Faith (2004), 'Assessing individual quality of life in developing countries: piloting a global PGI in Ethiopia and Bangladesh', *Quality of Life Research*, 13: 1545.

Ryan Richard M, Edward L. Deci (2001), 'On happiness and human potentials: a review of research on hedonic and eudaimonic well-being', *Annual Review of Psychology*, 52:141-166.

Schmidt, Silke and Monika Bullinger (2007), 'Cross-cultural quality of life assessment approaches and experiences from the health care field', in Gough I, J. Allister McGregor (eds) *Wellbeing in Developing Countries: from theory to research,* Cambridge: Cambridge University Press

Schwarz, N. and F. Strack (1999), 'Reports of Subjective Well-Being: Judgmental Processes and their Methodological Implications' in D. Kahneman, E. Diener and N. Schwarz (eds.) *Well-Being: The Foundations of Hedonic Psychology*, New York : Russell Sage Foundation Press

Schwartz, Caroline E., and Miriam A.G. Sprangers (1999), 'Methodological approaches for assessing response shift in longitudinal health-related quality-of-life research', *Social Science and Medicine*, 48(11): 1531-1548.

Sen, Amartya K. (2002), 'Health: perception versus observation', *British Medical Journal*, 324: 860-861.

Skevington Suzie M. (2002), 'Advancing cross-cultural research on quality of life: observations drawn from the WHOQOL development', *Quality of Life Research* 11:135-144.

Skevington, Suzie M., Norman Sartorius, Amir, Marianne, and the WHOQOL Group (2004), 'Developing methods for assessing quality of life in different cultural settings: The history of the WHOQOL instruments', *Social Psychiatry and Psychiatric Epidemiology* 39 (1): 1-8.

Skevington Suzie M and the WeD Group (2008), 'Conceptualising dimensions of quality of life in poverty', *Journal of Community & Applied Social Psychology*, 17.

Sumner, Andy (2006), 'Economic and non-economic well-being', in McGillivray M, Clarke, M (Eds), *Understanding human well-being*, Tokyo: United Nations University Press (p54-73).

Tiberius, Valerie (2004), 'Cultural Differences and Philosophical Accounts of Wellbeing', *Journal of Happiness Studies* 5: 293-314.

Triandis, Harry C. and Eunkook M. Suh (2002), 'Cultural influences on personality', *Annual Review of Psychology* 53:133-160.

Veenhoven, Ruut (2000), 'Freedom and happiness: a comparative study in forty four nations in the early 1990s', in Diener, E. and Suh, E.M. (Eds), *Culture and subjective well-being*, Cambridge, MA, US: M.I.T. Press

Veenhoven Ruut (2006), 'The four qualities of life: ordering concepts and measures of the good life', in McGillivray M, Clarke, M (Eds), *Understanding human well-being*, Tokyo: United Nations University Press

Watson, David. Clark, Lee and Tellegen, Auke (1988), 'Development and validations of brief measures of positive and negative affect: The PANAS scales', *Journal of Personality and Social Psychology* 54(6): 1063.

White, Sarah (2008), 'But What is Well-Being? A Framework for Analysis in Social and Development Policy and Practice', *WeD Working Paper 43*.

Woodcock, Alison, Camfield, Laura, McGregor, J. Allister, and Martin, Faith (2008), 'Validation of the WeDQoL-Goals-Thailand measure: culture-specific individualised quality of life', *Social Indicators Research* (in press, online as dx.doi.org/10.1007/s11205-008-9357-x).

Yamamoto, Jorge (2008), 'Implications for wellbeing research and theory', in Copestake, J (Ed), *Wellbeing and development in Peru: global and local views confronted.* New York: Palgrave Macmillan.

Yamamoto, Jorge, Ana Rosa Feijoo, and Alejandro Lazarte (2008), 'Subjective wellbeing: an alternative approach', in Copestake, J (Ed), *Wellbeing and development in Peru: global and local views confronted.* New York: Palgrave Macmillan.

Yamamoto, Jorge (2008), 'Un regard alternatif sur la subjectivité: le bien être des communautés andines' [An alternative approach to subjectivity: wellbeing in Andean communities], *Connexions*, 89(1): 147-71.

Yamamoto, Jorge and Ana Rosa Feijoo (2007), 'Componentes émicos del bienestar. Hacia un modelo alternativo de desarrollo' [Emic components of wellbeing. An alternative model of development], *Revista de Psicología*, 25 (2): 197-231.

# Appendix: Psychometric properties of weighted goal satisfaction scales in the four countries

|  | Total | Core | Subscales | Notes |
|---|---|---|---|---|
| Thailand | 44 item, α 0.91 | 28 item, α 0.88 | 3 subscales: House & home α 0.80; Nuclear family α 0.82; Community/social/ health α 0.90; 4 if house and home is split into basic (α 0.80) & luxury (α 0.63) | Started with 51 items, 7 excluded due to confusion/ overlap[20] |
| Ethiopia | 42 item, α 0.82 | 26 item, α 0.81 | 6 subscales: Work/finance/ goods α 0.84; Traditional community α 0.77; Household in community α 0.88; Modern orientation α 0.68; Basic needs α 0.55; Infrastructure/govt services α 0.86 | Started with 53 items, 11 excluded as not administered in all sites[21] |
| Bangladesh | 45 item, α 0.93 | 28 item, α 0.90 | 3 subscales: Basics & wealth α 0.87; Nuclear family α 0.90; Community/ life outside home α 0.91 | Started with 49 items, one item was deleted and 3 items excluded as they did not load with others[22] |
| Peru | 32 item, α 0.97 | 28 item, α 0.86 | 4 subscales: Community involvement, business & transport α 0.81; Personal needs α 0.76; Household needs α 0.62; Nuclear family α 0.80 | Started with 34 items (one excluded as only administered in rural areas)[23], 2 items excluded as they did not load with others [24] |

Source: Woodcock A. (2007), 'Validation of the WeDQoL: Goal necessity and satisfaction scales and individualised quality of life scores: Report to the WeD team (four volumes)', Bath: Wellbeing in Developing Countries Research Group, University of Bath.

---

[20] Marriage, position of authority, job, host celebrations, free of debt, work for food, professional title.

[21] Electricity, water, sanitation, water for house, own transport, position of authority, work for salary, agricultural products, irrigation, knowledge, money.

[22] Daily wage deleted. Nuclear family subscale excluded (children, marriage, good upbringing of children).

[23] Work for a living.

[24] Telephone, to be a professional (graduate).