Choice and Happiness in South Africa*

Andrea Szabó

Department of Economics

University of Houston

aszabo2@uh.edu

Gergely Ujhelyi

Department of Economics

University of Houston

qujhelyi@uh.edu

January 19, 2017

Abstract

To study the usefulness of subjective well-being measures as a proxy for utility, Benjamin et al. (2012) ask whether people choose what makes them happy in US samples. We use their methodology in a sample from low-income South African townships. Here respondents almost always choose what makes them feel happy. In addition, they perceive little conflict between own happiness and other relevant determinants of choice such as sense of purpose and family happiness.

^{*}We thank Dan Benjamin, Costas Meghir (the editor) and an anonymous referee for useful comments and suggestions.

"Generally, it is clear that things that make life less boring are a priority for the poor." A.V. Banerjee and E. Duflo: Poor Economics (2011, p36).

1 Introduction

Are survey measures of subjective well-being a good proxy for utility? In other words, do people choose what makes them "happy"? Benjamin et al. (2012) (BHKR from now on) examine this question for hypothetical choice scenarios in various US samples and generally find that the answer is 'yes'. However, they also show that the details matter: depending on the scenario, the sample, or the wording of the question, between 5 and 38 percent of respondents say that they would choose an option that would make them *less* happy.

In this paper we ask whether choices reflect happiness in a developing country setting. This is relevant for the use of subjective well-being (SWB) measures across countries, and more generally for understanding the objectives that drive choices in different settings. We use the methodology proposed by BHKR in a sample from low-income South African townships. We confront survey respondents with hypothetical choice scenarios, and also ask them which option would make them happier or help them fulfill other goals in life, such as their family's happiness, health, or a sense of purpose.¹

We find that respondents mostly choose the option that makes them feel happier. Felt happiness is typically viewed as driving choices less than more general measures of life satisfaction (BHKR, Diener et al., 2010 and Deaton et al., 2010), yet we find that in this South African sample it is a strong predictor of choice. In addition, respondents perceive little conflict between happiness and other goals: people in our sample tend to view choices that make them happy as also contributing to their other goals in life. Subject to various caveats emphasized below, these results differ somewhat from those found in the US.²

2 Research design

We conducted our surveys in a group of townships near Pretoria, a setting typical of periurban areas in many African countries. Sample characteristics are close to those reported by the South African statistical agency for the average Black household in the country.

¹To our knowledge, this is the first paper to use the BHKR methodology in a developing country. Our work differs from other studies using SWB data from developing countries by focusing on the relationship between choice and happiness rather than on the determinants of happiness. Like BHKR, we study hypothetical choice scenarios. Studying the association between actual choices and SWB along the lines of Benjamin et al. (2014) in a developing country context would be an interesting extension.

²The online Appendix provides further details on our design, results, and interpretations.

For reasons explained below, we focus on BHKR's "Cornell study." We presented respondents with 8 hypothetical choice scenarios adapted from BHKR for the South African context. For example, in one scenario we asked participants to imagine choosing between a job that pays R6000 (about \$600) a month and allows 7.5 hours of sleep each day and one that pays R10,000 (about \$1000) but only allows 6 hours of sleep. The full list of choice scenarios is given in the Appendix. After each scenario, we asked respondents which option they would most likely choose, with responses on a 6-point scale. We also asked them to rate how each option would make them feel in terms of a variety of possible goals including their own happiness, their family's happiness, their health, their social life, etc., with responses on a 7-point scale that included a "No difference" option. Question order was randomized and we use this to study the robustness of our findings in the Appendix. Finally, the survey also collected various socio-economic characteristics of the respondents.

We randomly sampled 1000 households from the full list of residential addresses in the townships of Mabopane, Ga-Rankuwa, and Winterveldt. All households were surveyed face-to-face in February 2013 in either English or the local language (Setswana).

3 Results

Table 1 shows the distribution of answers to the choice and SWB questions. For each scenario, the first four rows are restricted to respondents who did not indicate indifference for SWB and the fraction of respondents stating indifference is shown in the fifth row. For example, in the first column 15 percent of non-indifferent respondents would choose a job with more sleep and less pay and say that this option would make them happier. Of particular interest are the 3rd and 4th rows: these show the fraction of respondents exhibiting a "choice-SWB reversal." In the third cell of the first column, 7 percent of respondents would choose more sleep but think that the job with more income would make them happier, and 5 percent exhibit a reversal in the opposite direction.

In our sample, people mostly choose the option that makes them happier. Across all scenarios, choice and happiness coincide in 87 percent of the cases. The fraction of choice-happiness concordance for individual scenarios falls in a tight range (84-90 percent).³ These numbers are remarkably large, especially since we ask about felt happiness, which BHKR found to be *less* predictive of choice than more evaluative notions like life satisfaction.

³See the Appendix for a discussion of the Apple vs. Orange "test" scenario.

Table 1: Distribution of choice and SWB responses across scenarios

m U: ab on CW/D / Choses		Community	Live close to	Attend social	Nice meal	Less money		${ m Apple}$
	more sleep v	work v	friends v	event v	v pay	now v more	income v more	>
	more income	spend money	more income	save money	off debt	money later	relative income	orange
Option 1 / Option 1	15.05	50.05	11.19	41.37	27.64	88.99	69.05	47.88
Option $2 / Option 2$	72.21	34.21	75.29	45.12	57.28	23.43	20.36	37.13
Option $2 / Option 1$	7.26	10.98	9.29	7.82	10.13	4.79	6.82	11.62
Option 1 / Option 2	5.47	4.75	4.22	5.68	4.96	4.9	3.78	3.37
Indifference for SWB	1.14	1.35	1.14	3.21	1.24	2.08	0.93	4.25
p-value of	0.1455	0.0000	0.0000	0.0901	0.0001	1.0000	0.0057	0.0000
Liddell Exact Test								
Z	950	947	947	934	948	939	953	921

The fraction of indifferent SWB responses is indicated in the fifth row. The Liddell (1983) test is an equality-of-proportions test for paired data for the null hypothesis that the fraction of respondents who rank option 2 above option 1 is the same for the choice and the SWB questions. The text of Notes: For each scenario, the first four rows present the distribution of responses among those who did not indicate indifference for the SWB question. each scenario appears in the Appendix.

4

What other factors besides own happiness explain choices, and how strong is own happiness as a determinant of choice relative to these? To answer these questions, following BHKR we pool all scenarios and regress the choice scores on the scores for SWB and the other life goals. We demean all variables at the scenario level to control for differences across scenarios. The results in column 1 of Table 2 indicate that 49 percent of the variation in choice is explained by own happiness alone. This confirms the strong association between choice and happiness documented above. The next column excludes own happiness but includes the other 11 goals. This results in an R^2 similar to the first column: excluding own happiness, other factors (especially family happiness and sense of purpose) are also important determinants of choices. The third column includes all 12 goals, with little change in explanatory power but large drops in individual coefficients compared to columns (1) and (2), suggesting that own happiness is correlated with the other goals. We confirm this directly in the the Appendix by regressing the score on own happiness on the other 11 goals. For each scenario these goals explain over 80 percent of the variation in which option makes a person happier. In our sample, respondents tend to view choices that are more conducive to own happiness as useful for the attainment of other goals as well. They appear to perceive little conflict between SWB and other life goals.

4 Comparison with BHKR

BHKR analyze 29 survey versions, using two different survey methods across 3 samples ("Cornell," "Denver," and "CNSS"). Reproducing this rich design was not possible in our context. We focused our design on the Cornell study because it included other life-goals besides happiness as possible correlates of choices. This design is different from Denver and CNSS in at least two key dimensions. First, it allows for an "indifference" option in the SWB question. In the Appendix we show that when instead respondents are forced to indicate either a reversal or a concordance, we get fewer reversals. Second, in the Cornell study the SWB question asked exclusively about "happiness." By contrast the Denver study also contained a question on "life satisfaction," and this had significantly higher explanatory power for choice than immediately felt own happiness. We conclude that the safest comparison of our findings is with the Cornell results.⁵

BHKR's study and ours obviously differ in the country where the study is located, but there are also other differences. These include observable sample characteristics like

⁴Specifically, "happiness with life as a whole" and "immediately felt own happiness." BHKR show that there was no significant difference between these two measures.

⁵See the Appendix for a comparison with the other two studies.

income, education, and age. They are also likely to include unobservable characteristics stemming from random sampling vs. convenience sampling, and face-to-face interviews vs. self-administered or telephone questionnaires. There are also differences in language and culture. In principle, any of these differences could impact the findings, therefore one should not attribute differences in results to any one particular factor.

Subject to these caveats, we first note that in BHKR's Cornell study the fraction of responses where choice and happiness coincided was 77 percent, with a range of 62-84 percent across scenarios. This is significantly smaller than the 87 percent, with a range of 84-90, reported in our Table 1. The distribution of reversals shows a similar pattern: In BHKR, 82 percent of the subjects had a reversal in at least one scenario (BHKR's WebAppendix, p43), the corresponding fraction in our sample is 38 percent. People in our sample appear to choose what makes them happy more than they do in BHKR.

Reflecting the previous observations, the R^2 of the univariate regression of choice on happiness is larger here than in BHKR (0.49 in Table 2 above vs. 0.38 in BHKR, Table 3). Furthermore, in BHKR the explanatory power of SWB for choice changed little when other factors were included in the regression, indicating that the correlation between the various life goals is smaller in their sample. In the Appendix we confirm this directly by regressing own happiness on other goals in both studies: for all scenarios pooled, this yields an R^2 of 0.27 for BHKR compared with 0.86 in our sample. Among our respondents happiness and other life goals seem to be more closely aligned than in BHKR's sample.

5 Discussion

We investigated happiness and other determinants of choices in South Africa and found that respondents mostly choose what makes them feel happy. In addition, respondents perceive little conflict between happiness and other goals. The findings show some differences relative to those found in US samples. More broadly, our results highlight a potentially important dimension of heterogeneity: not only can people have different goals when making choices, they can also differ in the degree to which these goals are in conflict with each-other.

Table 2: Regressions of choice on SWB and other goals

	(1)	(2)	(3)
Own happiness	0.569***		0.312***
	(0.007)		(0.024)
Family happiness		0.250***	0.136***
		(0.024)	(0.025)
Health		0.090***	0.028
		(0.024)	(0.024)
Romance		-0.013	-0.028
		(0.023)	(0.022)
Social life		0.032	-0.005
		(0.023)	(0.022)
Control over life		0.036*	0.011
		(0.021)	(0.021)
Spirituality		-0.042**	-0.059***
- v		(0.020)	(0.019)
Fun		0.031	0.040**
		(0.020)	(0.019)
Social status		0.029	0.010
		(0.023)	(0.023)
Life's nonboringness		-0.066***	-0.048**
		(0.022)	(0.022)
Physical comfort		$0.023^{'}$	$0.020^{'}$
v		(0.025)	(0.024)
Sense of purpose		0.260***	0.197***
• •		(0.022)	(0.022)
Observations	7451	7451	7451
(pseudo) \mathbb{R}^2	0.4867	0.4899	0.5104

Notes: Each observation is a respondent's answers in a scenario. The dependent variable is the choice score (on a 6-point scale), the independent variables are the scores for the different life goals for that scenario (on a 7-point scale). Variables are demeaned at the scenario level. Robust standard errors in parentheses. ***, ** denote significance at the 1, 5, and 10 percent, respectively.

References

- [1] Benjamin, D.J., O. Heffetz, M.S. Kimball, and A. Rees-Jones (2012): "What Do You Think Would Make You Happier? What Do You Think You Would Choose?" *American Economic Review* 102(5), 2083–2110.
- [2] Benjamin, D.J., O. Heffetz, M.S. Kimball, and A. Rees-Jones (2014): Can Marginal Rates of Substitution Be Inferred from Happiness Data? Evidence from Residency Choices" *American Economic Review* 104(11), 3498–3528.
- [3] Deaton, A., J. Fortson, and R. Tortora (2010): "Life (evaluation), HIV/AIDS, and death in Africa," in: E. Diener, D. Kahneman, and J. F., Helliwell (eds.): International differences in well-being, pp. 105-136, Oxford, UK: Oxford University Press.
- [4] Diener, E., D. Kahneman, W. Tov, and R. Arora (2010): "Income's association with judgments of life versus feelings," in: E. Diener, D. Kahneman, and J. F., Helliwell (eds.): International differences in well-being, pp. 3-15, Oxford, UK: Oxford University Press.
- [5] Liddell, D.K. (1983): "Simplified Exact Analysis of Case-Referent Studies: Matched Pairs; Dichotomous Exposure." *Journal of Epidemiology and Community Health* 37 (1): 82-84.