

# **Geography, reference groups, and the determinants of life satisfaction**

by

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# Abstract

This dissertation combines three contributions to the literature on the determinants of well-being and the social nature of preferences....

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# Epistemological preface

The two most fundamental ingredients in the study of economics must be the answers to the questions: “How do people make decisions?” and “What is good for people?” ...

*Consider the following. We humans are social beings. We come into the world as the result of others' actions. We survive here in dependence on others. Whether we like it or not, there is hardly a moment of our lives when we do not benefit from others' activities. For this reason it is hardly surprising that most of our happiness arises in the context of our relationships with others.*

— HH Dalai Lama

*Our desires and pleasures spring from society; we measure them, therefore, by society and by the objects which serve for their satisfaction. Because they are of a social nature, they are of a relative nature. ... A house may be large or small; as long as the surrounding houses are equally small it satisfies all social demands for a dwelling. But let a palace arise beside the little house, and it shrinks from a little house to a hut ... the occupant of the relatively small house will feel more and more uncomfortable, dissatisfied and cramped within its four walls.*

— Karl Marx<sup>1</sup>

*...men do not desire to be rich, but richer than other men.*

— John Stuart Mill<sup>2</sup>

*Unless you've measured it, you don't know what you're talking about.*

— Lord Kelvin

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<sup>1</sup>?, p. 163, cited in ?

<sup>2</sup>Cited by ?

## Acknowledgements

I have received help and support from so many...

Thank you

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“Wait for me! I want to come too!” Ben, Chris, and (not visible) Ken and Kelly, pulling the laggard anchor-man over the wall. (2006)

CHRISTOPHER P. BARRINGTON-LEIGH



*Vancouver, B.C.*  
*13 January 2008*

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*For Iris: this one — and I promise it's the last — is for you,  
who set me on this hidden path in 2000,*

*And in memory of Robert, who had so much left to say.*

## Co-authorship statement

Chapter 2 is a manuscript co-authored with John F. Helliwell. C. P. Barrington-Leigh is the primary author in all regards. The *identification and design of the research program* for this paper were carried out jointly. Background *research*, the *data analysis*, and the *preparation of the manuscript* were performed by C. P. Barrington-Leigh, with comments on revisions provided by John F. Helliwell.

# Chapter 1

## Introduction

*Homo sapiens* is an extraordinarily social animal and economics has done much to contribute to the understanding of how its individual actions can add up to interesting group behaviour. In treating neat and tractable problems, however, economics may leave itself open to straying from the most important questions it ostensibly addresses. Humans like to seek hedonistic comforts and consumption, but they also like to help others, to be socially engaged, and to effect change in their lives and communities. Seeking non-market intangibles such as competence, autonomy, and relatedness [?] are no less fundamental nor important parts of our human nature. In the last four decades empirical evidence has become increasingly available to address scientifically the question of what aspects of a life actually promote the outcome of subjective well-being or, loosely, our “happiness”.

### 1.1 Happiness in economics

Should “happiness” be an objective in economics? It is not a natural one. In one sense, the social goal of humanity has in the past been genetic and cultural adaptation of the species to the given, possibly changing, environment. Individually, humans are assumed to have generally pursued the promulgation of their own genes.

What should be a measure of success for modern humanity? This is a hard question, but for economics to answer it without asking is worse than transparently failing to justify the answer. There is no naturally preferred direction for genetic evolution; for instance, bigger brains have often been a maladaptation due to their large energetic requirements. As a means of organising our perceptions and motivations, we are endowed by evolution with various internal measures of how things are going — for instance, (instantaneous) pleasure and (reflective) happiness or satisfaction.

Dystopian literature [*e.g.*, ?] has pointed out the perils of taking one evolved, psycho-physiological motivating device, such as pleasure, as a primary objective. Nevertheless, the pursuit of reflective happiness is more easily defended as an important *a priori* goal for a civilisation than are many others, including consumption volume, production output, or sizes of choice sets which are ubiquitously used as proxies for economic well-being.

Numerous other personal performance measures (health, longevity, caloric intake, literacy, mobility, and so on) are available and relatively accessible in objective terms. A fundamental

premise of the subjective well-being approach is that the relative importance of these metrics as social outcomes cannot be divined from economic or evolutionary theory. Ultimately, the question “What makes a good life?” cannot be answered with an arbitrary weighting of seemingly important factors. More significantly, it also cannot be answered satisfactorily by appealing to revealed preferences, especially for non-market goods for which choices and marginal tradeoffs are less easily observed and for which the variation in salient conditions may be small. Indeed, countless examples of dysfunctional or inconsistent individual behaviour are now available in economics as well as psychology and account for many societal constraints and supports such as the prohibition of illegal drugs and the inducement to save for one’s old age.

To assess the quality of life experience one must then necessarily appeal to a subjective response. By asking people in some way to report the quality of their experience, we recognise that finding the determinants of well-being given our current evolutionary makeup and civilised situation is an empirical question.

Whether or not one is compelled by lofty policy implications of happiness research or by elevating subjective well-being to some kind of a “prime directive,” understanding how circumstances and choices affect people’s own life satisfaction, and that of others in their society, bears enough on the fundamentals of economics and policy to attract widespread attention.

Subjective measures of overall life satisfaction have been a growing component of psychological literature since the late 1960’s [?] and come in the form of single-question measures [?] and multi-question indices [?]. For a recent assessment of the rôle of life satisfaction measures in economics, see ?.

Self-reported life satisfaction is a global assessment of life quality according to the respondent’s own criteria and standards. It is not framed by any objective conditions of health, wealth, comfort, or any other of an interviewer’s possible preconceptions of what might be an important factor. It refers to all aspects of life deemed relevant to the respondent and provides no information directly about an assessment of more specific domains of life, nor about which aspects the respondent considers important.

A large literature has dealt with the influence of personality and culture on self-reported life satisfaction [?], and a pursuit of prominent contemporary interest is to evaluate the social and economic determinants of differences in life satisfaction across and within countries. The empirical papers in this dissertation contribute to this effort by focusing on the variation within one country, Canada. Chapter ?? provides some more background on the psychological literature on happiness.

## **1.2 Veblen preferences**

## **1.3 Contributions**

# **Bibliography for Chapter 1**

## **Chapter 2**

# **Empathy and emulation: life satisfaction and the urban geography of comparison groups**

### **2.1 Introduction**

In many contexts of predictive analysis and policy framing, economists assume without evidence that desirable benefits accrue to humans based primarily on their absolute levels of consumption.<sup>1</sup>

More broadly, it is conventional to focus without empirical justifi-

### **2.2 Results**

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<sup>1</sup>A version of this chapter will be submitted for publication as Barrington-Leigh, C.P. and Helliwell, J.F., 'Empathy and emulation: life satisfaction and the urban geography of comparison groups.' The electronic version of this document offers fully hyperlinked cross-references throughout. We are grateful for support from SSHRC, the Canadian Institute for Advanced Research (CIFAR) and from Statistics Canada through UBC's Interuniversity Research Data Centre. This research forms part of the CIFAR Program on Social Interactions, Identity and Well-Being.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
log(HH inc)	.27 (.037)	.35 (.090)	.33 (.035)	.36 (.080)	.17 (.021)	.21 (.048)	.52 (.052)	.92 (.24)
DA: log(HH inc)	.28 (.13)	.27 (.29)	.31 (.11)	.31 (.26)	.17 (.074)	.15 (.16)	.45 (.16)	-.085 (.75)
CT: log(HH inc)	-.43 (.16)	-.51 (.12)	-.48 (.14)	-.53 (.10)	-.28 (.091)	-.32 (.070)	-.32 (.20)	-.47 (.17)
CSD: log(HH inc)	-.24 (.22)	-.12 (.16)	-.14 (.18)	-.050 (.12)	-.10 (.12)	-.043 (.095)	-.33 (.27)	-.43 (.17)
CMA: log(HH inc)	-1.08 (.26)	-1.08 (.26)	-.91 (.22)	-.91 (.22)	-.64 (.15)	-.64 (.15)	-.72 (.33)	-.72 (.33)
$\Sigma \beta_{inc}$	-1.19 (.28)		-.92 (.29)		-.69 (.16)		.53 (.27)	
health	2.61 (.091)		2.03 (.074)		1.44 (.052)		2.32 (.099)	
trust-N	1.25 (.061)		.99 (.052)		.70 (.034)		1.15 (.071)	
controls	✓	✓	✓	✓	✓	✓	✓	✓
geo fixed effects		✓		✓		✓		✓
survey	⟨3⟩	⟨2⟩	⟨3⟩	⟨2⟩	⟨3⟩	⟨2⟩	⟨3⟩	⟨2⟩
SWL≠10							✓	✓
ologit	✓	✓					✓	✓
OLS			✓	✓				
oprobit					✓	✓		
obs.	36931	≥9620	36931	≥9620	36931	≥9620	24893	≥1969

**Table 2.1: Robustness checks for estimates of SWL.** Summary of estimates in the format described on page ?? . Significance: 1% 5% 10%



	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
log(HH inc)	<b>.27*</b> (.037)	<b>.35*</b> (.090)	<b>.33*</b> (.035)	<b>.36*</b> (.080)	<b>.17*</b> (.021)	<b>.21*</b> (.048)	<b>.52*</b> (.052)	<b>.92*</b> (.24)
DA: log(HH inc)	<b>.28</b> (.13)	<b>.27</b> (.29)	<b>.31*</b> (.11)	<b>.31</b> (.26)	<b>.17</b> (.074)	<b>.15</b> (.16)	<b>.45*</b> (.16)	<b>-.085</b> (.75)
CT: log(HH inc)	<b>-.43*</b> (.16)	<b>-.51*</b> (.12)	<b>-.48*</b> (.14)	<b>-.53*</b> (.10)	<b>-.28*</b> (.091)	<b>-.32*</b> (.070)	<b>-.32</b> (.20)	<b>-.47*</b> (.17)
CSD: log(HH inc)	<b>-.24</b> (.22)	<b>-.12</b> (.16)	<b>-.14</b> (.18)	<b>-.050</b> (.12)	<b>-.10</b> (.12)	<b>-.043</b> (.095)	<b>-.33</b> (.27)	<b>-.43</b> (.17)
CMA: log(HH inc)	<b>-1.08*</b> (.26)	<b>-1.08*</b> (.26)	<b>-.91*</b> (.22)	<b>-.91*</b> (.22)	<b>-.64*</b> (.15)	<b>-.64*</b> (.15)	<b>-.72</b> (.33)	<b>-.72</b> (.33)
$\Sigma \beta_{inc}$	<b>-1.19*</b> (.28)		<b>-.92*</b> (.29)		<b>-.69*</b> (.16)		<b>.53</b> (.27)	
health	<b>2.61*</b> (.091)		<b>2.03*</b> (.074)		<b>1.44*</b> (.052)		<b>2.32*</b> (.099)	
trust-N	<b>1.25*</b> (.061)		<b>.99*</b> (.052)		<b>.70*</b> (.034)		<b>1.15*</b> (.071)	
controls	✓	✓	✓	✓	✓	✓	✓	✓
geo fixed effects		✓		✓		✓		✓
survey	⟨3⟩	⟨2⟩	⟨3⟩	⟨2⟩	⟨3⟩	⟨2⟩	⟨3⟩	⟨2⟩
SWL≠10							✓	✓
ologit	✓	✓					✓	✓
OLS			✓	✓				
oprobit					✓	✓		
obs.	36931	≥9620	36931	≥9620	36931	≥9620	24893	≥1969

**Table 2.2: Robustness checks for estimates of SWL.** Summary of estimates in the format described on page ???. Significance: **1%\*** **5%** **10%\***

## **Bibliography for Chapter 2**

## **Chapter 3**

# **Conclusions and further work**

In this dissertation I have tackled difficulties that arise in ...

## **Bibliography for Chapter 3**

## **Appendix A**

# **Appendix to Chapter 2**

### **A.1 Supplementary tables for urban geography of life satisfaction**

Some more detailed tabulated regression results are collected here.

Various tables and analysis...

## **Bibliography for Appendix to Chapter 2**