Enhancing Poverty-Abatement Programs: a Subjective Well-Being Contribution

Mariano Rojas

Received: 10 September 2007 / Accepted: 30 June 2008 /

Published online: 20 June 2009

© Springer Science + Business Media B.V./

The International Society for Quality-of-Life Studies (ISQOLS) 2009

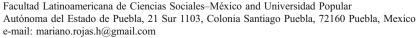
Abstract This paper questions the assumption used in designing social policies that raising people's income automatically translates into greater well-being. Based on a subjective well-being approach and a representative survey from Costa Rica the paper shows that there is substantial dissonance in the classification of persons as poor and as being in well-being deprivation. The existence of dissonances leads to the conceptualization of different trajectories out-of-poverty and into well-being. Public policies oriented towards the abatement of income poverty can have a greater impact on people's well-being if they recognize the complexity of human beings and acknowledge that their programs affect satisfaction in all domains of life. The paper states that public policy should not only be concerned with getting people out of income poverty, but also with placing them in a life-satisfying situation. The paper also discusses strategies that could improve poverty-abatement programs.

Keywords Subjective well-being · Well-being deprivation · Poverty · México

Introduction

The Millennium Development Declaration placed poverty reduction at the pinnacle of international-development objectives. Poverty reduction is one of the main considerations in the design of both domestic and foreign-aid programs; it also constitutes the main measure of their success. There is a wide range of indicators to compute and follow up poverty reduction, such as the percentage of people beneath a poverty line and the set of F-G-T indices (Foster et al. 1984), which deal with the depth of poverty in a population. The interest in monitoring poverty over time has led to a vast literature on the construction and properties of poverty indices







(reviewed in Thorbecke 2005); however, most of these poverty measures are inspired by an income-based conception of poverty. The dominance of an income-based conception of poverty, combined with the use of income-based indicators to assess the success of programs, has led to poverty-abatement policies that focus on getting people out of poverty by increasing their purchasing power.

In accordance with the objectives of the Millennium Development Goals (MDGs), there has been a proliferation of poverty-abatement programs across Latin American countries, as well as in other parts of the world. Of special relevance are conditional cash transfer programs, such as Oportunidades in Mexico, Bolsa in Brasil, and Avancemos in Costa Rica. Some programs have a narrow scope and focus on raising household income; other programs, with a broader scope, are influenced by the capabilities approach and focus on increasing human capital. This paper questions the implicit assumption that raising the income received by persons automatically translates into greater well-being. It uses a life-satisfaction conception of well-being and a domains-of-life approach to directly question this assumption. It also discusses factors that should be taken into consideration to enhance povertyabatement programs. The paper shows that a subjective well-being approach can be useful in the design of poverty-abatement programs that not only get people out of poverty but also place them in a life-satisfying situation. The paper also argues that subjective well-being indicators should systematically be taken into consideration for the evaluation of poverty abatement programs.

Based on a large survey applied in Costa Rica during 2004 and 2006, the paper shows that there is substantial dissonance in the classification of persons as poor and as being in well-being deprivation: not all income-poor persons have low life satisfaction, while some non income-poor persons are dissatisfied with their lives. The paper shows that the reasons for these dissonances must be found in the complexity of being a human being, as well as in the failure of income-based poverty definitions to capture this complexity.

The existence of dissonances leads to the conceptualization of different well-being routes people may follow when getting out of poverty. It is possible that some programs may get people out of income poverty while keeping them in well-being deprivation; clearly poverty-abatement programs which get people out of income poverty while substantially increasing their well-being would be superior. A complete understanding of these well-being routes requires a study of some dimensions of life that have been neglected by traditional poverty-abatement programs. The consideration of other dimensions of life (beyond the economic dimension) and a better understanding of how all dimensions of life are affected by income-increasing programs is fundamental for the design of well-being enhancing poverty-abatement programs.

The paper concludes by discussing some well-being enhancing policies to complement poverty-abatement programs. Of special relevance is the shift in emphasis from *income generation capacities*, such as investments in human and physical capital, to *life satisfaction capacities*, such as an acknowledgement of the intrinsic value of interpersonal relations and an education that strengthens people's skills to perform well in all domains of life. The incorporation of subjective well-being indicators is essential for the proper design and evaluation of poverty abatement programs.



The paper is structured as follows: "Poverty-Abatement Programs" discusses poverty-abatement programs. "Well-Being and Income Poverty" deals with the relationship between income and well-being and demonstrates that income poverty is a poor proxy for well-being deprivation. "The Database" discusses the Costa Rican database, as well as the construction of the relevant variables for the empirical analyses. "Well-Being and Income Poverty" shows that there are important dissonances in the classification of people as being in income poverty and as being in well-being deprivation. "A Domains-of-Life Explanation for Dissonances" elaborates on a domains-of-life explanation for these dissonances. "Conceptualizing Patterns out of Income Poverty" conceptualizes two different well-being patterns for persons getting out of income poverty; it argues that the best pattern is one that not only gets people out of poverty, but also places them in a life satisfying situation. "Contribution from the Subjective Well-Being Literature" discusses how findings from subjective well-being research provide useful insights to enhance poverty-abatement programs. Final considerations are made in "Final Considerations".

Poverty-Abatement Programs

The United Nations Millennium Declaration of September 2000 made 'Eradicating Extreme Poverty and Hunger' the first of eight MDGs. Specific targets were set for the year 2015, which represented a substantial reduction in poverty rates—in percentage terms—with respect to the situation in 1990 (United Nations 2000, 2001). Motivated by the goals set by MDGs, as well as by intellectual and financial support from international organizations, there has been a proliferation of conditional cash transfer programs (CCT) to abate poverty and reach the 2015 targets. For example, Mexico's *Oportunidades* (formerly *Progresa*), Brazil's *Bolsa Escola*, Colombia's *Familias en Acción*, and Nicaragua's *Red de Protección Social*.

Conditional Cash Transfer (CCT) programs are based on a philosophy of influencing household behavior so that intra-household decisions lead to an improvement in human capital, which is then expected to break a vicious poverty cycle. Beyond the direct impact of the transfer itself, the programs often aim to support human capital development, mostly through an education and/or a health component (Rawlings and Rubio 2004)

CCT programs must first establish an eligibility criteria; which defines the population that can benefit from the program. Common criteria refer to persons with household (or household per capita) income beneath a given level, as well as persons living in communities where per capita income is low. It is also common to use indicators of marginality, such as literacy rates and percentage of population who have access to public services, to select the communities where these programs will be implemented. Some programs focus on rural areas, while others have expanded to urban areas. CCT programs must also establish a behavioral conditionality for those who are to receive transfers. Households are required to undertake specific actions, mostly in terms of their children attending school and regularly visiting health and nutrition centers. For example, Mexico's *Oportunidades* program aims to help poor families to invest in their human capital by undertaking actions that improve the education, health and nutrition of their children. This focus on human capital



development is mentioned by Rawlings and Rubio (2004, p.1) who state: "Conditional cash transfers provide money to poor families contingent upon certain behavior, usually investments in human capital such as sending children to school or bringing them to health centers on a regular basis."

The impact evaluation of these programs has also acquired great relevance. There are ex-post evaluations that compare the beneficiaries' performance with respect to a control group. Matching techniques are used to assess the programs' impact on school attendance, weight and height gain, incorporation into labor markets, and increases in income. Ex-ante techniques are based on micro simulations that incorporate some (commonly neoclassical) behavioral assumptions (Parker and Skoufias 2000; Schultz 2000; World Bank 2001)

The design of these programs has also followed a process of modification based on previous experience. Das et al. (2005) study the conditionality of CCT programs and state that unconditional transfers would lead to different changes of behavior. For example, Bourguignon et al. (2002) and Cardoso and Souza (2003) have found that the increase in school attendance attained by Brazil's *Bolsa Escola* programme critically depended on the conditionality of cash transfers, and that unconditional cash transfers would have had no impact on school attendance. Thus, conditional transfers recognize that individual market choice is not a preferred social-policy objective. Research evidence, however, also questions the assumption that *CCT* programs have a long-lasting influence on household decisions; hence, once families graduate from the program their behavioral patterns tend to reflect their unconstrained rather than their constrained behavior (Miguel and Kremer 2004).

Well-Being and Income Poverty

A Close Relationship with Threshold is Assumed

Economists and policy-makers have commonly used income as a well-being proxy. It is assumed that there is a close relationship between income and a person's well-being. A rise in income increases well-being through greater purchasing power, which implies more consumption throughout the life cycle. However, human well-being is a complex matter which has been approached from many perspectives and which involves many cross-disciplinary aspects (Gough et al. 2007)

The basic-needs literature¹ proposes a hierarchy of needs: the literature recognizes a group of needs that are regarded as basic and their satisfaction usually requires the consumption of economic goods. It is assumed that persons who are unable to satisfy these basic needs experience well-being levels that are low. Hence, it is possible to conceptualize an income threshold, beneath which well-being will be low and beyond which it will be high. However, the absence of a direct measure of well-being has deterred the corroboration of these theories. Economists have ended up discussing normative arguments that support or reject

¹ For an in depth discussion of basic needs see Doyal and Gough (1991) and Gasper (2007).



their theories, with little empirical research to back these discussions up (Rojas 2008a)

Questioning a Close Relationship Between Income and Well-Being

Many arguments can be advanced to question the existence of a close relationship between income and well-being, as well as to question the existence of a clearly defined threshold. First, not everything of value can be purchased. Income allows for buying economic goods, but has little impact on a person's access to non-economic goods. Recent literature (Bruni and Stanca 2005; Gui and Sugden 2005; and Sugden 2005) states that relational goods such as love, emotional support, friendship, correspondence of sentiments, and good relations with neighbors and colleagues have a large impact on well-being. In an empirical study based on a survey applied in central Mexico, Rojas (2007a) shows that 'satisfaction with partner, children and family' is crucial for life satisfaction. Because of their nature, relational goods cannot be purchased and a market usually does not exist. The production of relational goods is time intensive, and because of time constraints this production often ends up conflicting with the production of income.

Second, income may not be used efficiently.² An increase in income may lead to little or no increase in well-being if the person does not have the skills to use income efficiently. There is a vast literature that questions the rationality of persons, as well as their ability to correctly foresee the well-being impact of their consumption decisions (Scitovsky 1976; Hsee and Hastie 2006; Thaler 1980, 1992, 2000; Tversky and Kahneman 1974, 1981, 1986; Loewenstein and Schkade 1999). Using 1500 observations from a survey in central Mexico, Rojas (2008b) has found that most people do not use their purchasing power efficiently so that they end up getting less economic satisfaction than would be possible from their income.

Third, there may be basic needs that do not require income for their satisfaction. The psychological needs approach (Deci and Ryan 1985; Kasser and Ryan 1993, 1996; Kasser 2002; Ryan and Sapp 2007) states that there are fundamental psychological needs which must equally be viewed as basic needs; these are autonomy, competence and relatedness. Persons who cannot manage to satisfy their psychological needs experience low well-being (McGregor 2007). This approach also states that a person's income makes little contribution to the satisfaction of psychological needs and in some cases may even be detrimental (Kasser 2002).

Fourth, there is the issue of the social immersion of consumers. The idea that well-being increases with higher income relies on the assumption that well-being depends on absolute consumption but not on relative consumption. Social thinkers such as Adam Smith, Karl Marx, and Thorstein Veblen recognized that needs may be socially influenced. Recent research (Frank 1985, 2005; Schor 2002; Alpizar et al. 2005) has shown that the satisfaction attained from the consumption of some goods is contingent on the consumption of other members of the community (reference groups). Hence, it may be that absolute consumption is not closely related to a person's well-being.

² Frank (2005, p. 70) suggests that "people might have been able to spend their money in other ways that would have made them happier, yet for various reasons did not".



Fifth, we must consider the possibility that there may be a threshold for the well-being impacts of consumption. The ordinal utility approach in economics states that utility is non-decreasing on income; a higher income allows for the satisfaction of more wants and desires, which leads to higher utility. However, it is impossible to know how much well-being increases as a consequence of the satisfaction of some wants and desires. It could be that satisfying some additional wants and desires have little impact on a person's well-being, even if income is used efficiently. Hence, it could happen that an increase in income does not have a strong impact on well-being.

Sixth, income is not the only source of well-being. The domains-of-life literature (Cummins 1996; van Praag et al. 2003; Rojas 2007a; Salvatore and Muñoz Sastre 2001) states that a person's well-being depends on her satisfaction in many domains of life where she is performing as a human being. Satisfaction in these domains of life depends on many factors beyond a person's income, such as: age, level of education, health, types of hobbies and pastimes, type of job, place of residence, nature and strength of interpersonal relations with partner, children, parents, colleagues and neighbors, and so on. Thus, it is expected that income and well-being will not show a close relationship.

Measuring Well-Being: the Subjective Well-Being Approach

Economists have not been able to corroborate the hypothesis that income and well-being are strongly related due to the lack of an observable variable for well-being. The emergence of the 'economics of happiness' literature (Easterlin 1974, 1995, 2001; Clark and Oswald 1994; Di Tella et al. 2001; Ferrer-i-Carbonell and Frijters 2004; Frey and Stutzer 2000; Oswald 1997; van Praag et al. 2003; van Praag and Ferrer-i-Carbonell 2004; and Stutzer 2004) provides not only the tools, but also the epistemological support and academic endorsement to have an observable output variable for a person's well-being.

The subjective well-being approach used here is based on the following six principles (Rojas 2007a): First, it deals with well-being as declared by the person, usually reported as an answer to a life satisfaction or happiness question; it is the person's evaluation of her life. The approach states that this is the best way to know a person's well-being. Second, it works with the well-being of a person, rather than with the well-being of an academically defined agent; thus, it studies the well-being of a person of *flesh and blood* and *who is in her circumstance*. Third, it recognizes that a person's well-being is essentially subjective; the person is the one who is experiencing her well-being, and nobody else can do that. Fourth, it accepts that the person is the authority to assess her well-being; because being well or not is fundamentally a subjective experience. Fifth, it accepts a person's assessment of her well-being as correct and then follows an inferential-bottom-up-rather than a normative-top-down-methodology to identify the factors that influence a person's well-being. Sixth, it calls for a transdisciplinary-or at least interdisciplinary-study of

⁴ In this way, even if it sounds paradoxical, it can be said that the subjective well-being approach avoids the subjectivity and arbitrariness of the so-called objective indicators of well-being. It deals with the well-being of a person as she is, and not as someone else thinks she ought to be.



³ There is no person without circumstances; thus, the alternative for a person is not to get rid of all cultural biases, parents, dependencies, values, goals, childhood experiences, and so on; but to substitute them for different ones.

well-being, since it is difficult to capture the complexity of a person's well-being assessment from any single discipline. Hence, life satisfaction as it is reported by the person is used as an observable output variable for her well-being.

On Income Poverty and Well-Being Deprivation: Dissonances Expected

Based on the arguments put forward in "Questioning a Close Relationship Between Income and Well-Being", it is expected that income poverty will not always be a good proxy for well-being deprivation. In other words, some persons classified as poor could enjoy well-being beyond deprivation levels; while some non-poor persons could be in well-being deprivation. The following sections use the subjective well-being approach to explore the existence of dissonances in the classification of persons as poor and as being well-being deprived. They also provide an explanation for these dissonances which is based on the domains-of-life literature.

The Database

The Survey

The database comes from a yearly national survey run by the University of Costa Rica. The survey is applied every year to 1000 persons during the middle of the year, and it is representative for the country. In the 2004 and 2006 a section of subjective well-being questions were introduced in the survey.⁵ Thus, the database used here consists of a total of 2000 observations.

The Variables

The survey gathered information regarding the following quantitative and qualitative variables:

Demographic Variables: household-income dependent persons.

Economic Variables: current household income.

Life Satisfaction: the following question was asked: "Taking everything in your life into consideration, how satisfied are you with your life?" A seven-option categorical answering scale was used. The scale's answering options are: extremely unsatisfied, very unsatisfied, unsatisfied, neither satisfied nor unsatisfied, satisfied, very satisfied, extremely satisfied. Life Satisfaction was handled as an ordinal variable, with values between 1 and 7; where 1 corresponds to the extremely unsatisfied category and 7 to the extremely satisfied category.

⁶ The author has found that results do not substantially differ when life satisfaction is treated as a cardinal rather than as an ordinal variable. Ferrer-i-Carbonell and Frijters (2004) also show that there are no substantial differences when satisfaction is treated either as a cardinal or as an ordinal variable.



⁵ The author expresses his gratitude to the Merck Foundation for a grant that financially supported the incorporation of a subjective well-being group of questions in the survey.

Satisfaction in Concrete Areas of Life: Seven questions were asked to inquire about satisfaction with the following domains of life: health, job, economic, family relations (satisfaction with partner, children and rest of family), friendship, self (availability and use of leisure time), and community environment. A seven-option response scale similar to the one used for the life satisfaction question was used. Satisfaction questions were handled as cardinal variables, with values between 1 and 7; where 1 was assigned to the lowest satisfaction level and 7 to the highest.

It is obvious that the demarcation of the domains of life is somewhat determined by the original set of twenty-four questions. However, this classification is close to Cummins' comprehensive review of the domains of life satisfaction (1996).

Well-Being and Income Poverty

Well-Being Categories

Table 1 shows the frequency for the life-satisfaction question. 1998 persons out of 2000 answered the life-satisfaction question. It is observed that most people evaluate their lives as satisfactory or more than satisfactory.

This investigation takes advantage of working with a categorical response scale. Two well-being lines are defined; a line for well-being deprivation is set at a life satisfaction level of *neither unsatisfied nor satisfied*; thus, people who are *extremely unsatisfied*, *very unsatisfied*, *unsatisfied* and *neither unsatisfied nor satisfied* with their lives are considered as having low well-being. A second line for moderate well-being is defined at the '*satisfied*' level on the basis of these people still having enough room to improve their life satisfaction. These criteria imply that 18.7% of people in the sample are in well-being deprivation; while 36.8% are experiencing moderate well-being.

Household per Capita Income and Income Poverty

Table 2 presents the distribution of people in the sample according to their household per capita income. Of the 2000 persons who were asked, 1705 persons answered the

Table 1 Sample distribution across life-satisfaction categories well-being classification

Well-Being Categories	Satisfaction	Percentage
Well-Being Deprivation	Extremely unsatisfied	2.60
	Very unsatisfied	3.55
	Unsatisfied	4.45
	Neither unsatisfied nor satisfied	8.11
Ioderate Well-Being Satisfied		36.84
High Well-Being	Very satisfied	31.73
	Extremely satisfied	12.71
	Total	100.0



Income Ranges	Percentage
Y _{hpc} ≤2	21.8
$2 < Y_{hpc} \le 5$	37.8
$5 < Y_{hpc}$	40.5
•	100.0
	$Y_{\rm hpc} \le 2$ $2 < Y_{\rm hpc} \le 5$

Table 2 Sample distribution across household per capita income ranges household per capita income (Y_{hpc}) in U.S. dollars per day income-poverty classification

income question. It is observed that 21.8% of people in the sample have a household per capita income of US\$2 dollars per day or less, while 37.8% of people are beneath the US\$5 dollars per day level.

This investigation uses household per capita income to define income poverty lines. Household per capita income is commonly—but not universally-used to define income poverty. This investigation classifies a person as being in income poverty if she lives in a household with a per capita income of US\$2 dollars per day or less. A person is classified as being in moderate income poverty if she lives in a household with a daily per capita income in between US\$2 and US\$5 dollars. On the basis of these criteria, and as shown in Table 2, 21.8% of people in the sample are classified as income poor; while 37.8% of people in the sample are considered as being in moderate income poverty.

Well-Being Deprivation and Income Poverty: Dissonances and Concordances

Is income poverty a good proxy for low well-being? This section shows that important dissonances exist between the classification of people as income poor and well-being deprived. In other words, not all people who are considered as being in income poverty experience low life satisfaction, and not all people who are considered as non-income poor experience high life satisfaction.

Table 3 shows the existence of dissonances and concordances in the arrangement of people when the well-being and the income-poverty classifications are contrasted.

It is observed that 76% of people in the survey who are classified as poor based on their income (a household per capita income of US\$2 dollars or less per day) report moderate and high life satisfaction (a life evaluated as satisfactory or better). Well-being deprivation (low life satisfaction) is reported by 24% of poor people. In addition, 17.9% of people in the survey who are classified as non poor on the basis of their income report low life satisfaction. Thus, income poverty does not fully capture a person's subjective well-being situation.

Table 4 extends the analysis to the expanded classifications of well-being and income poverty, which incorporate the categories of moderate life satisfaction and moderate poverty. Dissonance emerges in all three income poverty categories.

⁷ The purpose of this investigation is not to study alternative proxies for the definition of income poverty. Rojas (2007b) shows that household per capita income could be a bad proxy for a person's economic satisfaction because economies of scale at the household level are considerable. In addition, it is also possible for household income not to be a proxy of personal access to economic resources due to intrahousehold inequality in the distribution of income benefits (Rojas 2006b).



Table 3 Well-being and income poverty dissonances and concordances in percentages of total survey population

Well-Being	Income Poverty		
	Poor	Non poor	
Deprivation	24.0	17.9	
Moderate and High	76.0	82.1	
Total percentage	100.0	100.0	
Total observations	371	1332	

Why doesn't well-being deprivation closely follow income poverty? The following section uses a domains-of-life approach to explain the reasons for this dissonance and to show that the well-being deprivation conception is broader and richer than the income poverty one.

A Domains-of-Life Explanation for Dissonances

The domains-of-life literature states that life can be approached as an aggregate construct of many specific domains, and that life satisfaction can be understood as the result of satisfaction in the domains of life. In other words, it is argued that a person is much more than a consumer or an economic agent. She is being human not only when she is consuming goods and services, but also when she is spending time and other resources in interpersonal relations (either with a spouse, a partner, children, other family members, friends and neighbors), when she is using her leisure time and pursuing her hobbies, and in other human deeds. This study has information about a person's satisfaction in seven domains of life: *health*, *economic*, *job*, *family*, *friends*, *self* and *community*; thus, it is possible to study the structure of domain satisfaction, as well as their relationship with life satisfaction.

Rojas (2006a, 2007a) has shown that in Mexico satisfaction in the *family* domain is crucial for life satisfaction. *Health* and *Self* satisfaction are also of great relevance.

Table 4 Well-being and income poverty: expanded categories dissonances and concordances in percentages of total survey population

Well-Being	Income Povert	Income Poverty			
	Poor	Moderate poor	Non poor		
Deprivation	24.0	21.8	14.2		
Moderate	43.1	36.5	32.8		
High	32.9	41.7	53.0		
Total percentage	100.0	100.0	100		
Total observations	371	643	689		



Job and economic satisfaction follow in importance. Similar results are obtained for Costa Rica.

Moving out of Income Poverty while Remaining in Well-Being Deprivation

This paper has stressed that well-being is a broader and richer concept than income poverty. It is thus possible for a person to get out of income poverty while remaining in well-being deprivation, since a rise in income does not ensure that her satisfaction in most domains of life will increase. It could be possible for some policies to reduce income poverty while having little or even a negative impact on well-being because they do not impact on satisfaction in other domains of life or can even have adverse effects.

Table 5 uses a domains-of-life perspective to further explain why a person may be out of income poverty while remaining in well-being deprivation. All people in Table 5 are in well-being deprivation; however, some are in income poverty and others are not.

Table 5 shows domains-of-life satisfaction for people who are in well-being deprivation and how they are classified according to their income-poverty situation. While the income of the non-poor is almost 700% greater than that of the poor, their life satisfaction is only 11% greater and still well below the satisfactory level. The non-poor do have significantly higher levels of *economic* (from 2.93 to 4.36) and *job* satisfaction (from 3.69 to 4.39) with respect to the poor (c.f. Biswas-Diener and Diener 2001). However, the difference between the poor and the non-poor in *family* satisfaction—a crucial domain for subjective well-being—and in domains such as *health*, *friendship*, *self* and *community* is relatively small. Hence, at a conceptual level, it is possible to imagine a situation where people can get substantial increases in income while remaining in well-being deprivation; in this case income makes a strong impact on *economic* satisfaction, but not in other important domains of life.

Table 5 Average satisfaction in domains of life for people in well-being deprivation by income poverty category

Domain of Life	Poor	Moderate Poor	Non Poor
Health	4.15	3.84	4.55
Economic	2.93	3.80	4.36
Job	3.69	4.15	4.39
Family	4.30	4.76	4.81
Friendship	4.34	4.68	4.92
Self	3.83	4.19	4.34
Community	4.11	3.96	4.19
Life Satisfaction	2.79	2.96	3.10
Daily Household per capita Income	1.18	3.32	9.14
n	89	140	98



Moving out of Well-Being Deprivation while Being in Income Poverty

As well-being deprivation and income poverty are not closely related, it is also possible to conceive of a situation where people get out of well-being deprivation while remaining in income poverty. Table 6 uses the domains-of-life perspective to illustrate this possibility. All persons in Table 6 are in income poverty.

Table 6 shows that for those people classified as poor there are substantial differences in satisfaction in domains of life. Amongst the income poor, those persons who are not in well-being deprivation report life satisfaction that is 120% greater than people in well-being deprivation, even though their income is only 13% higher. These persons show higher satisfaction in all domains of life. Considerable differences are observed in their *job*, *health*, *self* and *family* satisfaction, as well as in their *economic* satisfaction. It is noteworthy that their *economic* satisfaction is substantially higher even under relatively similar economic conditions; this is clearly a consequence of the relationship between income and *economic* satisfaction being weak. Rojas (2008b) studies the existence of a high disparity in economic satisfaction within income groups and argues for people making an inefficient use of their purchasing power in order to attain economic satisfaction; however, further research is needed on this issue.

In general, a person can be satisfied with her life even if her income is low; as long as she is moderately satisfied in domains of life such as *family*, *self*, *health*, *job*, and *economic*.

Conceptualizing Patterns out of Income Poverty

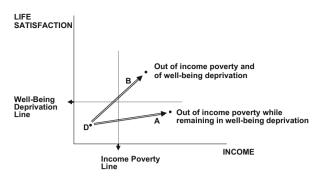
This paper has shown that it is possible to jump over the income poverty line with little effect in life satisfaction; Pattern A in Graph 1 illustrates this possibility. Pattern B shows a trajectory where a person jumps not only over the income poverty line,

Table 6 Average satisfaction in domains of life for people in income poverty by well-being category

Domain of Life	Well-Being			
	Deprived	Moderately Deprived	Non Deprived	
Health	4.15	5.02	5.66	
Economic	2.93	4.02	4.34	
Job	3.69	4.55	5.17	
Family	4.30	5.20	5.84	
Friendship	4.34	5.06	5.60	
Self	3.83	4.69	5.16	
Community	4.11	4.59	4.73	
Life Satisfaction	2.79	5.00	6.20	
Daily Household per capita Income	1.18	1.29	1.33	
n	89	160	122	



Graph 1 Well-being routes out of income poverty



but also over the experienced poverty line. It is clear that pattern B is superior to pattern A because income is not an end but a means for well-being.

What is needed from a person and her society for pattern *B* to take place rather than pattern *A*? The domains of life approach states that in conjunction with an increase in income it is also important to have an increase in satisfaction in most domains of life; especially those domains that are crucial for life satisfaction, such as the *family*, *self*, *job* and *health* domains.

Table 7 shows the alternative trajectories that can be followed out of income poverty. Column D illustrates what could be considered as the point of departure: the situation of persons who are in income poverty (daily household income less than US\$2 per capita) and in well-being deprivation. Column A shows the situation of people in the sample who are in well-being deprivation but not in income poverty; their income places them in moderate income poverty (household per capita income in between US\$2 to 5 dollars), but their life satisfaction places them in well-being deprivation. Column B shows the situation of people who are not in well-being deprivation nor in income poverty; they assess their life as satisfactory or better, and their daily household per capita income is in between US\$2 to 5 dollars.

Pattern A in Graph 1 can be understood as the situation of a person who moves in Table 7 from column D to column A; she is no longer in income poverty (average income increases 181% and places her well above the US\$2 dollars income line), but her life satisfaction just slightly increases from 2.79 to 2.96. Her life satisfaction does not substantially increase because her higher income does not translate into greater satisfaction in most domains of life. On the other hand, pattern B can be understood as the situation of a person who moves from column D to column B. Persons in column B are not only out of economic poverty, they are also out of well-being deprivation; their life satisfaction is on average 104% higher. It is observed in Table 7 that higher life satisfaction is attained because satisfaction in all domains of life increases dramatically. Hence, the desirable pattern out of income poverty is from D to B, rather than from D to A. It means that the increase in income can have a larger well-being impact if it is accompanied by policies that increase satisfaction in all domains of life, rather than confining their impact to the economic and job domains of life. Table 7 also provides some socio-demographic information for the different groups.



Table 7 Average satisfaction for persons in different poverty and well-being conditions

Domain of Life	D In Well-Being Deprivation ^a & Income Poverty ^b	A In Well-Being Deprivation ^a & Moderate Income Poverty ^c	B Not in Well-Being Deprivation ^d & in Moderate Income Poverty ^c	A/D	B/D
Health	4.15	3.84	5.35	0.92	1.29
Economic	2.93	3.80	4.72	1.30	1.61
Job	3.69	4.15	5.06	1.12	1.37
Family	4.30	4.76	5.51	1.11	1.28
Friendship	4.34	4.68	5.34	1.08	1.23
Self	3.83	4.19	4.87	1.09	1.27
Community	4.11	3.96	4.69	0.96	1.14
Life Satisfaction	2.79	2.96	5.69	1.06	2.04
Average daily household per capita income ^e	1.18	3.32	3.42	2.81	2.90
Age	36.3	35.5	36.6		
Gender (women=1)	0.53	0.59	0.53		
Years of education	8.1	9.0	9.8		

^a People with life satisfaction level beneath satisfactory.

Contribution from the Subjective Well-Being Literature

The subjective well-being literature can provide useful guidance in designing integrated poverty-abatement programs. For poverty-abatement programs to be well-being enhancing it is desirable for a person not only to have more income, but to also have many other qualities and attributes at the same time. It is a matter of social policy design to reduce the potential trade offs that may take place between the pursuing of higher income levels and these other qualities and attributes. Thus, it is important to recognize firstly that well-being deprivation is explained not only by low income but also by other relevant factors associated with satisfaction in many domains of life. Secondly, well-being enhancement does not only depend on increasing income but also on improving satisfaction in many domains of life. Thirdly, there may be trade-offs between the pursuing of higher income and the attainment of other qualities and attributes in life. Fourthly, that these trade-offs may be reduced or even avoided if social programs recognize that well-being depends on satisfaction in many domains of life, and that many qualities and attributes need to be



^b People with daily household per capita income of US\$ 2 dollars or less.

^c People with daily household per capita income in between US\$ 2 and 5 dollars.

^d People with life satisfaction equal to *satisfactory* or better.

e In U.S. dollars

considered when designing these programs. Among the relevant attributes it is possible to mention:

The Role of Leisure

Intrinsic Value of Leisure

The importance of leisure must not be neglected, even at low income levels. Lloyd and Auld (2001) and Lu and Hu (2005) have shown that leisure is an important source of well-being and that its use in social activities is well-being enhancing. Klumb and Perrez (2004) provide a survey of the importance of leisure for well-being. Furnham (1991) discusses the principles for leisure satisfaction. Palomar (2000) shows that access to recreational areas and parks are strongly related to psychological well-being in Mexico City.

Leisure and the Production of Relational Goods: from Social Capital to Interpersonal Relationships

Furthermore, leisure time allows for the production of relational goods, which have been found to be important for well-being and which are time-intensive in their production. Fostering long-lasting friendships requires time. Powdthavee (2005) has found a close and positive relationship between friendship and happiness. Myers (2000) shows that friendship and good partner relationships are closely related to subjective well-being. Rojas (2007a) shows that a satisfactory relationship with partner and children constitutes a main source of happiness. Family and friends provide such important goods as emotional support, care and nurturing, confidence and self-esteem development, and acceptance and correspondence of sentiments. In a study in the United States, Thomas (1990) noted that leisure time is significantly related to marriage satisfaction, as women value having time to communicate with their partner, while men value family cohesion. Orbuch et al. (1996) found out that couples that manage to reduce their working hours and spend more time together achieve higher marriage satisfaction. Better and more gratifying family relations contribute to the reduction of adolescent problem behavior (Suldo and Huebner 2004). Shapiro and Lambert (1999), Amato (1994) and Vanderwater and Lansford (1998) show that divorce and parental conflict can have a negative impact on the well-being of children; while Wenk (1994) demonstrates that parental involvement increases children's happiness. According to Huebner et al. (1998) a satisfactory marriage relationship is the main explanatory factor for the well-being of children. In a study with Korean data, Yang (2003) found that an increase in economic resources is associated with greater well-being only when family relations involve love, care, recognition and acceptance. Evans and Kelley (2004) also emphasize that having a stable and long-lasting marriage makes a significant impact on a person's happiness.

The Importance of Education: from Human Capital to Wisdom for Life

Education and human capital have been treated as though they were synonymous. The basic stated aim of transfers conditional on school attendance is to increase the



human capital of beneficiaries. The predominance of income as a proxy for well-being, however, neglects the intrinsic value of education. Rojas (2007a) has shown that a person's education is strongly related to her *family* (partner and children), *self* (personal development, use of leisure time, and so on) and *job* satisfaction. People with more education have more satisfactory occupations, and pursue more stimulating and gratifying hobbies and interests. Ross and Willigen (1997) also found that a better education allows for more control over personal life and a better use of leisure time. Briant and Marquez (1986) show that education allows women to socially integrate and to acquire more decision making power within families and societies. Kirkcaldy and Furnham (2004) find a strong relationship between education and subjective well-being. Further research should focus on understanding what pedagogies and teaching techniques are associated with life satisfaction and satisfaction in domains of life, rather than stressing the number of years of school attendance, as this is an understudied area in subjective well-being research.

The Community: from Social Capital to Interpersonal Relations

Persons live in communities. Their well-being also depends on the qualities of their nearby surroundings. Of special importance is the existence of neighborhoods; while some social-assistance programs have focused on providing a roof to poor families, subjective well-being research emphasizes the need of providing neighborhoods. Sirgy and Cornwell (2002) find that community satisfaction is relevant for a person's life satisfaction. There are also well-being costs of migrating to attain additional income. Rokach (2000) discusses these 'uprooting costs' when a person leaves her community and friends. The positive well-being impact of healthy habits such as exercising is found by Hayes and Ross (1986).

Consumer Skills

An increase in income does not necessarily ensure an increase in economic or life satisfaction. It all depends on how this additional purchasing power is spent. If beneficiaries of poverty-abatement programs lack consumption skills then it is possible that their additional purchasing power will be used to satisfy desires that contribute little to their well-being. Thus, their additional income generates little increase in their well-being. Rojas (2008b) shows that there is considerable X-inefficiency in the use of income at all levels of income. Thus, well-being enhancing programs should focus not only on raising income but also on providing the knowledge and skills, as well as the institutional arrangements to enable people to spend it wisely. This area has been completely neglected by traditional economic theory which assumes that people are rational; however, a vast literature in economics and behavioral-economics theory stresses the possibility of people underperforming in their use of income (Scitovsky 1976; Earl 2007).

Special attention must be placed on how values are modified as a consequence of the programme and what social contexts people will be placed in once they attain higher purchasing power. Kasser and Ryan (1993) show that there is little gain in well-being if people become more materialistic and focus their life on pursuing economic benefits.



Enhancing Poverty-Abatement Programs: the Scope of Public Concern

There is a big risk of neglecting and underestimating the importance of well-being enhancing factors when focusing only on income poverty. It is important to worry about getting people out of income poverty, but it is more beneficial to also worry about the additional skills people need to have a more satisfactory life.

Public policy has recognized that a person's capacity to generate income is a matter of social concern and of social influence. In a similar way, it should be recognized that a person's satisfaction with life is not only a private matter; it depends on social and institutional factors such as the kind of education provided, the values promoted, the way public expenditure and direct transfers are allocated, access to recreational and community services, the nature of the family, migration and demographic patterns, and so on. Social policy and economic development should not only be concerned about getting people out of income poverty, but also about placing them in a situation that promotes a life that is judged by the person herself as a satisfactory one.

The evaluation of poverty-abatement programs should go beyond income to incorporate a subjective well-being module. It would be very useful to know how life satisfaction, as well as satisfaction in many domains of life, is modified by these programs. Having appropriate information on peoples' experiences of well-being would enable the design of better programs.

Final Considerations

This paper addresses an issue of social relevance; it questions the assumption that raising a person's income automatically improves her well-being. The assumption has been dominant in the design of social policies and in the debate on development strategies. The predominance of a limited conception of poverty that overestimates the importance of income and of the economic domain has led to a neglect of other relevant dimensions of being. This could reduce the capacity of social policies to promote personal well-being. The subjective well-being approach is useful to expand our understanding of what means to be human and what is meant by well-being deprivation.

The paper shows that subjective well-being is broader and richer than the information provided by a person's income. There are some dissonances in the classification of persons as being in income poverty and being well-being deprived. It is possible to find people who are in income poverty while not being in well-being deprivation, as well as people who are in well-being deprivation but not in income poverty. Dissonances are explained on the basis of the domains-of-life literature, which states that a person's satisfaction with life depends on her satisfaction in the many concrete areas of life where the person is being a human being.

The paper argues that although helpful, the abatement of income poverty does not ensure the reduction of well-being deprivation. Thus, it is not only important to reduce income poverty, but it is also important to do it in a way that fosters well-being. Any strategy to reduce income poverty must take into consideration its impact on the other domains of life where people express their humanity and from which



they attain most of their life satisfaction. It could be possible for some policies to reduce income while having little-or even a negative-impact on well-being. Public policy should not only be concerned with getting people out of income poverty, but also with placing them in a situation that fosters their life satisfaction.

The paper shows that to improve the well-being impact of poverty-abatement programs it is imperative to recognize the following. First, persons are complex and they derive their well-being from satisfaction in many domains of life. Second, even though the economic domain of life is relevant, it does not determine life satisfaction. Third, an increase in income—and, perhaps, in economic satisfaction—is not necessarily accompanied by an increase in satisfaction in other crucial domains of life. Fourth, it is possible to design programs that expand the positive impact of raising income on life satisfaction. Fifth, in order to enhance these poverty-abatement programs it is necessary to go beyond the economic domain of life to consider the impact of public policies in other domains. Sixth, the sphere of public intervention should not be limited to those factors related to income generation alone.

Acknowledgments Financial support to run the Costa Rican surveys from the Merck Company Foundation, the philanthropic arm of Merck & Company Inc., Whitehouse Station, New Jersey, USA, is acknowledged.

References

- Alpizar, F., Carlsson, F., & Johansson-Stenman, O. (2005). How much do we care about absolute versus relative income and consumption? *Journal of Economic Behavior and Organization*, 56, 405–421.
- Amato, P. (1994). Father-child relations, mother-child relations, and offspring psychological well-being in early adulthood. *Journal of Marriage and Family, 56*, 1031–1042.
- Biswas-Diener, R., & Diener, E. (2001). Making the best of a bad situation: satisfaction in the slums of Calcutta. *Social Indicators Research*, 55, 329–352.
- Bourguignon, F., Ferreira, F., & Leite, P. (2002). Ex-ante evaluation of conditional cash transfer programs: The case of bolsa escola. Policy research working paper. Washington: World Bank.
- Briant, F., & Marquez, J. (1986). Educational status and the structure of subjective well-being in men and women. *Social Psychology Quarterly*, 49, 142–153.
- Bruni, L., Stanca, L. (2005). Watching Alone: Relational Goods, Television and Happiness. Working paper, Bocconi University.
- Cardoso, E., & Souza, A. (2003). The impact of cash transfers on child labor and school attendance in Brazil. Rio de Janeiro: Instituto de Estudos do Trabalho e Sociedade.
- Clark, A., & Oswald, A. (1994). Unhappiness and unemployment. The Economic Journal, 104, 648–659.Cummins, R. (1996). The domains of life satisfaction: an attempt to order chaos. Social Indicators Research, 38, 303–332.
- Das, J., Do, Q.-T., & Özler, B. (2005). Reassessing conditional cash transfer programs. World Bank Research Observer, 20(1), 57–80.
- Deci, E., & Ryan, R. (1985). Intrinsic motivation and self-determination in human behavior. New York: Plenum.
- Di Tella, R., MacCulloch, R., & Oswald, A. (2001). Preferences over inflation and unemployment: evidence from surveys of happiness. *American Economic Review*, 91, 335–341.
- Doyal, L., & Gough, I. (1991). A theory of human need. Basingstoke: Macmillan.
- Earl, P. (2007). Consumer X-inefficiency and the problem of market regulation. In R. Franz (Ed.), Renaissance in behavioral economics, essays in memory of Harvey Leibenstein. London: Routledge.
- Easterlin, R. (1974). Does economic growth improve the human lot? Some empirical evidence. In P. David & W. Reder (Eds.), *Nations and households in economic growth* (pp. 89–125). US: Academic.



- Easterlin, R. (1995). Will rising the incomes of all increase the happiness of all? *Journal of Economic Behaviour and Organization*, 27(1), 35–48.
- Easterlin, R. (2001). Income and happiness: towards a unified theory. The Economic Journal, 111, 465–484.
- Evans, M., & Kelley, J. (2004). Effect of family structure on life satisfaction: Australian evidence. Social Indicators Research, 69, 303–349.
- Foster, J., Greer, J., & Thorbecke, E. (1984). A class of decomposable poverty measures. *Econometrica*, 52(3), 761–765.
- Frank, R. (1985). The demand for unobservable and other nonpositional goods. American Economic Review, 75(1), 101–116.
- Frank, R. (2005). Does absolute income matter? In L. Bruni & P. L. Porta (Eds.), Economics & happiness: Framing the analysis. Oxford: Oxford University Press.
- Furnham, A. (1991). Work and leisure satisfaction. In S. Strack, M. Argyle & N. Schwartz (Eds.), Subjective well-being (pp. 235–259). Oxford: Pergamon.
- Ferrer-i-Carbonell, A., & Frijters, P. (2004). How important is methodology for the estimates of determinants of happiness? The Economic Journal, 114, 641–659.
- Frey, B., & Stutzer, A. (2000). Happiness, economy and institutions. The Economic Journal, 110, 918-938.
- Gasper, D. (2007). Conceptualizing human needs and well-being. In I. Gough & J. A. McGregor (Eds.), Researching well-being in developing countries: From theory to research (pp. 47–70). Cambridge: Cambridge University Press.
- Gough, I., McGregor, A., & Camfield, L. (2007). Theorising wellbeing in international development. In I. Gough & J. A. McGregor (Eds.), Researching well-being in developing countries: From theory to research (pp. 3–43). Cambridge: Cambridge University Press.
- Gui, B., & Sugden, R. (eds). (2005). Economics and social interaction. Cambridge: Cambridge University Press.
- Hayes, D., & Ross, C. (1986). Body and mind: the effect of exercise, overweight, and physical health on psychological well-being. *Journal of Health and Social Behavior*, 27, 387–400.
- Hsee, C., & Hastie, R. (2006). Decision and experience: why don't we choose what makes us happy? Trends in Cognitive Sciences, 10(1), 31–37.
- Huebner, E., Gilman, R., & Laughlin, J. E. (1998). A multi-method investigation of the multidimensionality of children's well-being reports: discriminant validity of life satisfaction and self-esteem. Social Indicators Research, 46, 1–22.
- Kasser, T., & Ryan, R. (1993). A dark side of the american dream: correlates of financial success as a central life aspiration. *Journal of Personality and Social Psychology*, 65(2), 410–422.
- Kasser, T., & Ryan, R. (1996). Further examining the american dream: differential correlates of intrinsic and extrinsic goals. *Personality and Social Psychology Bulletin*, 22, 280–287.
- Kasser, T. (2002). The high price of materialism. Massachusetts: MIT.
- Kirkcaldy, B., & Furnham, A. (2004). The relationship between health efficacy, educational attainment, and well-being among 30 nations. European Psychologist, 9, 107–119.
- Klumb, P., & Perrez, M. (2004). Why time sampling studies can enrich work-leisure research. Social Indicators Research, 67, 1–10.
- Lloyd, K., & Auld, C. (2001). The role of leisure in determining quality of life: issues of contents and measurement. Social Indicators Research, 57, 43–71.
- Loewenstein, G., & Schkade, D. (1999). Wouldn't it be nice? Predicting future feelings. In D. Kahneman, E. Diener & N. Schwarz (Eds.), Foundations of hedonic psychology: Scientific perspectives on enjoyment and suffering. New York: Russell Sage Foundation.
- Lu, L., & Hu, C. (2005). Personality, leisure experiences and happiness. *Journal of Happiness Studies*, 6, 325–342.
- McGregor, A. (2007). Researching well-being: from concepts to methodology. In I. Gough & J. A. McGregor (Eds.), Researching well-being in developing countries: From theory to research (pp. 316–350). Cambridge: Cambridge University Press.
- Miguel, E., & Kremer, M. (2004). Worms: identifying impacts on education and health in the presence of treatment externalities. *Econometrica*, 72(1), 159–217.
- Myers, D. (2000). The funds, friends, and faith of happy people. American Psychologist, 55, 56-57.
- Orbuch, T., House, J. S., Mero, R. P., & Webster, P. S. (1996). Marital quality over the life course. Social Psychologist Quarterly, 59, 156–171.
- Oswald, A. (1997). Happiness and economic performance. The Economic Journal, 107, 1815-1831.
- Palomar, J. (2000). The development of an instrument to measure quality of life in Mexico City. Social Indicators Research, 50, 187–208.



Parker, S., Skoufias, E. (2000). The impact of progresa on work, leisure and time allocation. IFPRI Final Report on Progresa. Washington, DC: IFPRI.

- Powdthavee, N. (2005). *Identifying causal effects with panel data: The case of friendship and happiness*. The Institute of Education: University of London.
- Rawlings, L., & Rubio, G. (2004). Evaluating the impact of conditional cash transfer programs. World Bank Research Observer, 20(1), 29–55.
- Rokach, A. (2000). The effects of culture on the meaning of loneliness. Social Indicators Research, 53, 17–31.
- Rojas, M. (2008a). Experienced poverty and income poverty in Mexico: a subjective well-being approach. World Development, 36(6), 1078–1093.
- Rojas, M. (2008b). X-Inefficiency in the Use of Income to attain Economic Satisfaction. Journal of Socio-Economics, forthcoming.
- Rojas, M. (2007a). The complexity of well-being: a life-satisfaction conception and a domains-of-life approach. In I. Gough & J. A. McGregor (Eds.), Researching well-being in developing countries: From theory to research (pp. 259–280). Cambridge: Cambridge University Press.
- Rojas, M. (2007b). Estimating equivalence scales in mexico: a subjective well-being approach. Oxford Development Studies, 35(3), 273–293.
- Rojas, M. (2006a). Life satisfaction and satisfaction in domains of life: is it a simple relationship? *Journal of Happiness Studies*, 7(4), 467–497.
- Rojas, M. (2006b). Communitarian versus individualistic arrangements in the family: what and whose income matters for happiness? In R. Estes (Ed.), Advancing quality of life in a turbulent world. Frankfurt: Springer Verlag.
- Ross, C., & Willigen, M. (1997). Education and subjective quality of life. *Journal of Health and Social Behavior*, 38, 275–297.
- Ryan, R., & Sapp, A. (2007). Basic psychological needs: a self-determination theory perspective on the promotion of wellness across development and cultures. In I. Gough & J. A. McGregor (Eds.), Researching well-being in developing countries: From theory to research (pp. 71–92). Cambridge: Cambridge University Press.
- Salvatore, N., & Muñoz Sastre, M. T. (2001). Appraisal of life: "Area" versus "Dimension" conceptualizations. Social Indicators Research, 53, 229–255.
- Schultz, T. P. (2000). The impact of progresa on school enrollment. IFPRI final report on progresa. Washington: IFPRI.
- Schor, J. (2002). Understanding the new consumerism: inequality, emulation and the erosion of well being. Tijdschrift voor Sociologie, 23(1), 1–14.
- Scitovsky, T. (1976). The joyless economy: An inquiry into human satisfaction and consumer dissatisfaction. Oxford: Oxford University Press.
- Shapiro, A., & Lambert, J. (1999). Longitudinal effects of divorce on the quality of the father-child relationship and the father's psychological well-being. *Journal of Marriage and Family*, 61, 397–408.
- Sirgy, M., & Cornwell, T. (2002). How neighborhood features affect quality of life. Social Indicators Research, 59, 79–114.
- Stutzer, A. (2004). The role of income aspirations in individual happiness. *Journal of Economic Behavior & Organization*, 54, 89–109.
- Sugden, R. (2005). Correspondence of sentiments: an explanation of the pleasure of social interaction. In L. Bruni & P. L. Porta (Eds.), *Economics & happiness: Framing the analysis*. Oxford: Oxford University Press.
- Suldo, S., & Huebner, E. (2004). The role of life satisfaction in the relationship between authoritative parenting dimensions and adolescent problem behavior. Social Indicators Research, 66, 165–195.
- Thaler, R. (1980). Toward a positive theory of consumer choice. *Journal of Economic Behavior and Organization*, 1, 39–60.
- Thaler, R. (1992). Quasi-rational economics. New York: Russell Sage Foundation.
- Thaler, R. (2000). From homo economics to homo sapiens. *The Journal of Economic Perspectives, 14*(1), 133–141.
- Thomas, V. (1990). Determinant of global life happiness and marital happiness in dual-career black couples. Family Relations, 39, 174–178.
- Thorbecke, E. (2005). Multi-dimensional Poverty: Conceptual and Measurement Issues. Paper presented at The Many Dimensions of Poverty International Conference, UNDP International Poverty Centre, Brasilia, August 29–31, 2005.
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: heuristics and biases. Science, 185, 1124–1131.



- Tversky, A., & Kahneman, D. (1981). The framing of decisions and the psychology of choice. *Science*, 211, 453–458.
- Tversky, A., & Kahneman, D. (1986). Rational choice and the framing of decisions. *Journal of Business*, 59(4), 251–278.
- United Nations. (2000). Resolution Adopted by the General Assembly: United Nations Millennium Declaration. A/RES/55/2, New York: UN, http://www.un.org.
- United Nations. (2001). Road Map towards the Implementation of the United Nations Millennium Declaration: Report of the Secretary-General', A/56/326, New York: UN, http://www.un.org.
- van Praag, B., Frijters, P., & Ferrer-i-Carbonell, A. (2003). The anatomy of subjective well-being. *Journal of Economic Behavior & Organization*, 51, 29–49.
- van Praag, B., & Ferrer-i-Carbonell, A. (2004). *Happiness quantified: A satisfaction calculus approach*. Oxford: Oxford University Press.
- Vanderwater, E., Lansford, J. (1998). Influences of family structure and parental conflict on children's well-being, 47, 323–330.
- Wenk, D. (1994). The influence of parental involvement on the well-being of sons and daughters. *Journal of Marriage and the Family*, 56, 229–234.
- World Bank. (2001). Brazil: an assessment of the bolsa escola programs, report 20208-BR. Washington, DC.
- Yang, O. (2003). Family structure and relation. Social Indicators Research, 62, 121-148.

