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The heterogeneous level of life quality across Chilean regions☆

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ABSTRACT

This paper integrates the empirical literature attempting to measure quality of life with different philosophical, economic and psychological approaches that shed some light on the contours of the concept. On this basis, we suggest quality of life is composed of multiple dimensions of value that are not reducible to a single teleological measure as proposed by utilitarianism and modern economics. A quality of life index must integrate subjective and objective indicators, measures of environmental quality and inequality, individual and collective wellbeing and material and non-materials aspects. We applied this framework to the regions of a rapidly growing economy, Chile, and despite the data limitations, the paper adds dimensions that have not been explicitly considered in previous work. Using a large set of indicators based mostly on micro-data, ten factors characterizing different dimensions of life are built from 27 indicators that represent: material and subjective individual wellbeing, collective good and subjective social welfare, environmental quality and resource inequality across the Chilean regions. The behavior of the factors is very heterogeneous across regions and the correlation between factors is positive for the one representing material and subjective individual welfare, but negative with the factors representing collective good and social wellbeing. Given these results, the methods used weighting and aggregation for calculating the index becomes critical in defining the final ranking of regions. For instance, the assumption about substitution between factors is a key issue. Three methods of aggregation are used to calculate the index: the arithmetic and geometric mean that allow perfect and imperfect substitution respectively and the min-function that does not allow substitution. The results show a great deal of variation in the Quality of Life Ranking among Chilean regions, suggesting policy makers that pursuing one or two dimensions is not enough for promoting quality of life due to the multidimensional character of the concept.

1. Introduction

This paper deals with the important question of what constitute quality of life understood as what matters for human beings to live a fulfilling life. This has been the domain of economists, philosophers, psychologists and other social scientists, but, on this issue, the influence in public policy decisions of the latter has been much limited than the former.

Modern economics has been built on a particular vision of what constitutes quality of life: originally happiness, subsequently income. Economics has generated a plethora of indicators to measure and analyze the goods and services produced by a country (or a region) and designed a complete toolbox to predict and control these indicators. However, this vision has been under attack for decades by philosophers and other social scientists from different perspectives. While these critiques have inspired shifts in policy discourse, their influence on current practice has been more limited due to the absence of a unified conceptual framework and lack of measurement instruments.

Starting from a review of the relevant theoretical literature on what constitute quality of life, this paper proposes an eclectic integration of different theories of quality of life based on (but not limited to) the capability approach. Starting from this conceptual basis, it aims to build an indicator of quality of life in the Chilean regions and analyze the differences across the country, taking especial consideration of environmental quality. For the construction of this index we use a large set of indicators based mostly on

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micro-data, a quality of life index is calculated and the results are analyzed and compared to the traditional view.

The Chilean economy had grown significantly in the last four decades, especially when it is compared with other Latin American countries. This is also reflected in other indicators such as the human development index. However, growth has brought development to a reduced group of people and territories, generating inequality and discontent in a large share of the population. In fact, Michelle Bachelet second government was elected by almost two out of three Chileans on the basis of a large-scale reform program that promised rupture with the past. Very little was achieved while government popularity shrunk to unseen low levels since the return of democracy and discontent has increased.

This special issue focus on the concept of smart policy for the development cities and regions conditioned by the notion of spatial sustainability and the environmental quality. This paper contribute by focusing in an ample definition of quality of life, using the Chilean case to propose a measured of its level in a spatial context (Chilean regions) considering different dimensions of the development, which determine sustainability and among which is the environmental quality. In addition, the paper distinguishes between objective and subjective people wellbeing, showing that those perspectives not always move in the same directions.

The following section works on concepts to understand quality of life, looking at different perspectives; and gives details on the literature about measuring quality of life. Section three describes Chile and its regions, the variables and factors used to estimate the index of quality of life and the procedure for running a reliability and confirmatory factor analysis, using Chilean regions data. Section 4 develops the procedure for calculating the quality of life index and present different alternatives for its calculation, and section five concludes.

2. Understanding quality of life

2.1. Three dominant approaches

In this section, we approximate theoretically and empirically the concept quality of life, attempting to link both grounds. As a first attempt, one might start by revising the definition given in the most widely used dictionaries and websites. Quality of life is defined as the standard of health, comfort and happiness experienced by an individual or group (Oxford Dictionary), the level of satisfaction and comfort that a person or group enjoys (Cambridge Dictionary), or as the general wellbeing of a person or society (Collins Dictionary, Wikipedia). Well-being is in turn stated as the condition of being contented, healthy or successful (Collins), the state of feeling healthy and happy (Cambridge) or the condition of an individual or group, for example their social, economic, psychological, spiritual or medical state (Wikipedia).

Using Amartya Sen's words (referring to the concept standard of living), the concept quality of life is characterized by both 'competitive plurality' (different views stand as alternatives to each other) and 'constitutive plurality' (internal diversity within a view, which may have different aspects that supplement but do not supplant each other) (Sen, 1987, p. 58: 2). As for the first, there are many different philosophical approaches to the concept of quality of life that arise as a by-product from different theories of social justice. Within political liberalism, one might distinguish at least utilitarianism, fairness, libertarianism and capabilities. There are also other approaches such as Marxism and communitarianism. As for the second, constitutive plurality, within all these approaches, different authors might give varying degrees of consideration to sustainability, gender, children, and future generations.

The possibility of measuring each philosophical perspective depends on the availability of adequate indicators. Indicators have been developed, however, mostly without much concern for which philosophical perspective is being reinforced. In fact, on a more empirical basis, Diener and Suh (1997) distinguish three approaches to measuring quality of life: economic indicators, social indicators, and subjective wellbeing.

Economic indicators do not require much introduction. Part of its attractiveness arises from its "objective" measurement and the toolboxes that economists have developed to influence their trend and stability.

In contrast, subjective wellbeing indicators rely mostly on the perception of individuals, measured as, on the one hand, their answer to questions related either to an overall assessment of one's life or life satisfaction and, on the other hand, a more hedonic moment-to-moment affect such as the ones proposed by Kahneman, Krueger, Schkade, Schwarz, and Stone (2004), Csikszentmihalyi (1990) and Kahneman and Krueger (2006).

Most authors emphasizing economic indicators[1] and a few of those favoring subjective wellbeing give supremacy to a unique measure of wellbeing (whether income or utility) share a common philosophical anchor in utilitarianism (for instance Layard, 2006a,b; Bok, 2010). This is also the case of behavioral economists aligned with so-called "libertarian paternalism" (Thaler & Sunstein, 2008), where "nudge" is justified solely to "improve individual decision making" to obtain more "happiness" than would have happen without intervention.

Social indicators, in contrast, recognize explicitly a more plural basis of quality of life (see Land, 1996, for an historical account of the origin and development of social indicators). This is shared only with some authors contributing to subjective wellbeing research, such as Frey and Stutzer (2012), who argue that findings from happiness research should only be inputs into the political process and should not be used to maximize a social welfare function (as an utilitarian would pretend). Social indicators and all subjective wellbeing researchers, nevertheless, share in common the critique of development focused merely on economic aggregates and are also aware of the imperfect correlation between economic growth and these other dimensions (for instance, total utility is not related to the availability of resources neither is freedom of association and movement nor health and education).

Nowadays, this has been translated in a growing consensus about the inadequacy of measuring development or poverty solely on the basis of economic resources alone. Resources have only an instrumental function, from a certain level are not relevant, do not correlate perfectly with intrinsically valued states or activities, and many valued dimensions (such as love, friendship, or respect) cannot be traded in markets (Sen, 1980 and 1987, p. 58, Alkire, 2008; Stiglitz, Sen, & Fitoussi, 2008; González et al., 2012).

Moreover, even within political liberalism, many modern political philosophers reject (at least partially) Bentham's utilitarianism on which modern economics is based. This means that the evaluation of social change solely in terms of efficiency or productivity lies on unsafe ethical grounds. Many authors, including John Rawls, Amartya Sen and Robert Nozik, reject the possibility of reducing human life to a single teleological end, especially one called happiness or utility. For Rawls and Sen, it is the egalitarian access to freedoms what should be placed first not the subjective evaluation of life by individuals. However, this does not mean that information

[1] Modern economics assume individuals rationally maximize a utility function dependent on their consumption of goods and services, subject to their budget restriction. It is not necessary to measure utility thanks to Samuelson (1938) revealed preference theorem and improvements of social welfare are assimilated to GDP growth thanks to Kaldor-Hicks-Scitovsky principle of compensation.

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