

Theoretical Perspectives Guiding QOL Indicator Projects

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Abstract Most of the theoretically based QOL indicators projects can be classified in terms of six major theoretical concepts: (a) socio-economic development (b) personal utility, (c) just society, (d) human development, (e) sustainability, and (f) functioning. I explain the core aspects of these six theoretical paradigms and show how they help guide QOL researchers to select and develop QOL indicators that are significantly and qualitatively distinct. A taxonomy of QOL indicators guided by a given theoretical concept is likely to be very different from others taxonomies guided by different theoretical concepts. Thus, the objective of this paper to explain these theoretical paradigms and show how they guide QOL researchers to select and develop QOL indicators that are significantly and qualitatively distinct.

Keywords Measurement of quality of life (QOL) · Measurement of well-being · Indicators projects · QOL theory · QOL constructs and measures

1 Introduction

Hagerty et al. (2001) reviewed 22 of the most-used QOL indexes from around the world in their seminal article published in *Social Indicators Research*. Examples of QOL indexes covered in this review included the CDC's Behavioral Risk Factor Surveillance System (BRFSS), the World Health Organization (WHO) instruments such as WHOQOL-100 and the WHOQOL-BREF, the Consumer Confidence Index (CCI), Money Magazine's "Best Places," the Index of Economic Well-Being (IEWB), the Genuine Progress Index (GPI), the American Demographic Index of Well-Being, the Johnston's QOL Index, the Eurobarometer, Veenhoven's Happy-Life Expectancy (HLE) scale, the International Living Index, the United Nations Human Development Index (HDI), Miringoff's Index of Social Health, State-level QOL surveys, the Estes' Index of Social Progress (ISP), Diener's Basic

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and Advanced QOL Indexes, Cummins' Comprehensive QOL (ComQol) scale, Michalos' North American Social Report, Philippines' Social Weather Station, Netherland's Living Conditions Index (LCI), the German System of Social Indicators (SPES) project, and the Swedish Undersokningar av Levnadsfordhallanden (ULF) system. Part of the critical review was to evaluate these QOL indicator projects using well-established theory; however, these QOL theories were never clearly articulated in the article.

There are literally hundreds (maybe thousands) of indicators projects that are not published in scholarly journals such as *Social Indicators Research*, *Journal of Happiness Studies*, *Quality of Life Research*, and *Applied Research in Quality of Life*. However, the vast majority of these indicators projects publish their indicator work on their own websites. For a listing of community indicators projects, visit the website of Community Indicators Consortium at www.communityindicators.net. Many indicator projects develop their system of indicators using a bottom-up method (Dluhy and Swatz 2006). This method focuses on allowing community residents and community stakeholders groups to identify indicators that are important to them (and therefore the community at large). The end result is a QOL index that is essentially constrained in meaning or theoretical relevance. In contrast, the top-down approach to the development of QOL measures and indices is one that is guided by well-established theory. As such, QOL measures and indices that are developed using a top-down approach are treated with much more credibility because they are based on sound theory that imbue meaning to the indicator system and guides its development and implementation.

The goal of this paper is to articulate well-established QOL theories that can guide the development and use of QOL indicator projects worldwide. Ultimately, it would be useful to clearly understand the different theoretical perspectives to *use clearly articulated QOL theories to evaluate the meaningfulness and public policy goals of an indicators project*.

In the following sections, six major theoretical concepts underlying QOL indicator projects are identified and described. These are (a) socio-economic development, (b) personal utility, (c) just society, (d) human development, (e) sustainability, and (f) functioning. To reiterate, the attempt here is to explain these theoretical paradigms and show how they guide QOL researchers to select and develop QOL indicators that are significantly and qualitatively distinct.

2 The Socio-Economic Development Concept

Many community planners at the town/city/regional level believe that their basic mission is essentially *economic development*. Similarly, many policy makers at the national and international levels believe that economic development is the foundation for social development. In other words, when a community (defined broadly in terms of a politically recognized geographic area) achieves satisfactory levels of economic development, social development follows (e.g., Diener and Diener 1995; Diener et al. 1993; D'Iribarne 1974; Kenny 2005). There is enough evidence to support the notion that economic development is strongly related to social development (i.e., economic development is highly correlated with community indicators of health, high quality government institutions, environmental pollution, and subjective well being).

QOL indicators projects guided by the socio-economic development concept collect data on economic indicators such as GDP (mostly at the national and international levels), household income, unemployment, type of jobs, quality of jobs, cost of living, poverty, and homelessness. Such indicator researchers work closely with economic development



Fig. 1 The concept of socio-economic development in QOL indicators projects

specialists or community planners/policy makers heavily influenced by economic development thinking (see Fig. 1).

Therefore, community indicators projects guided by the socio-economic development concept collect data on economic indicators such as household income, unemployment, type of jobs, quality of jobs, cost of living, poverty, and homelessness.

The GDP (or GDP per capita) concept has been criticized by many economists and QOL researchers. GDP is a measure of market production. Its goal is to capture aggregate supply side economies. It is not designed to capture socio-economic development (or what some may call “standard of living”) per se. Despite this caveat, the GDP construct has been used by many researchers, news media, and public policy makers as a key indicator of standard of living. For a thorough discussion of the shortcomings of the GDP construct, the reader is referred to the *Report by the Commission on the Measurement of Economic Performance and Social Progress*, authored by Professors Joseph E. Stiglitz, Amartya Sen, and Jean-Paul Fitoussi (www.stiglitz-sen-fitoussi.fr). This Commission report provided the following recommendations related to the use of the GDP construct in capturing socio-economic development:

1. Focus more on income and consumption rather than market production only. This is due to the fact that living standards are more closely related to measures of real income and consumption than production.
2. Consider income and consumption together with wealth (balance sheet of an economy in terms of physical, human, natural, and social capital).
3. Focus on the household as the unit of analysis. Capturing socio-economic development at the household level is better than capturing it at a more macro level because this is where the action is.
4. Emphasize distribution of income, consumption, and wealth (rather than averages) to reveal the whole story about living standards.
5. Broaden income measure to include non-market activities (e.g., services people receive from family members).

It should be noted that socio-economic development is not a concept that can capture the entire domain of the QOL construct. It may help define and articulate indicators of economic well-being but leaves out other important dimensions of well-being such as social well-being, health well-being, and environmental well-being.

2.1 A More Liberal View of Socio-economic Development

Although the socio-economic development concept remains popular in QOL studies and indicators projects, it has been revised considerably to broaden its scope. I will describe two emergent concepts, namely (a) capital and (b) stocks and flows.

2.1.1 A Broadened Concept of Capital

Socio-economic development is currently viewed in terms of “capital” (Anielski 2007). There are five major sources of community capital: (a) financial or economic capital,

Fig. 2 A liberal view of socio-economic development in QOL indicators projects

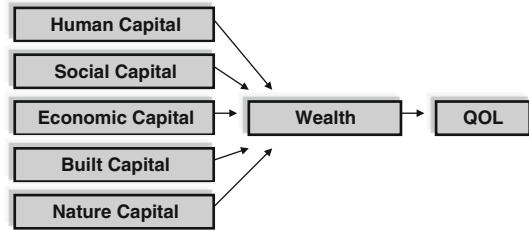


Table 1 QOL Indicators Guided by the Liberal View of Socio-economic Development

<p>Human capital <i>Health and wellness:</i> life expectancy, mortality rate, infant mortality, low birth weight babies, teen birth rate, tobacco use, suicide rate, auto crash mortality rate, etc. <i>Recreation and leisure:</i> physical activity, affordable recreational activities, etc. <i>Work:</i> labor force participation rate, employment rate, unemployment rate, etc. <i>Time use:</i> unpaid work, unpaid household work, unpaid parenting, unpaid eldercare, etc. <i>Education & learning:</i> educational attainment, high school drop out rate, average class sizes, etc.</p>	<p>Social capital <i>Diversity:</i> ethnic diversity, population that is foreign-born, etc. <i>Trust and sense of belonging:</i> trust of neighbors, neighborliness, community organizations, etc. <i>Safety & crime:</i> violent crime, property crime, drug crime, motor vehicle collision rate, etc. <i>Equity & fairness:</i> income gap between top and bottom income households, ratio of female earnings to male earnings, etc. <i>Community vitality:</i> number of cultural community events, attendance of public forums, etc. <i>Citizenship:</i> voter turnout on elections, etc.</p>
<p>Economic or financial capital <i>Economic vitality:</i> housing starts, building permit value per capita, etc. <i>Living standards:</i> median income, average household expenditures as % of income, incidence of low income households, dependency on entitlement programs, etc. <i>Affordable housing:</i> average value of dwelling, property taxes per person, demand for subsidized housing, etc. <i>Affordable & efficient gov't:</i> municipal gov't expenditures per citizen, municipal tax rates, etc.</p>	<p>Built capital <i>Public & private infrastructure:</i> private dwellings, growth in # of dwellings per 100 people, % of dwellings requiring major repairs, municipal gov't spending on transportation infrastructure, recreation facility venues, bike and walking trails, public transit expenditures by municipal gov't per capita, etc.</p>
<p>Natural capital <i>Ecological footprint:</i> demand on natural capital vs. nature's supplies, ratio of ecological footprint to land, etc. <i>Population density:</i> people per sq km, etc. <i>Sustainable food production:</i> % of food grown and sourced locally, prime agricultural land per person, etc. <i>Natural environment:</i> green space, forest cover, water quality, air quality, greenhouse gas emissions, etc. <i>Consumption & conservation:</i> water consumption, water storage per citizen, residential waste per capita, etc.</p>	

(b) human capital, (c) social capital, (d) built capital, and (e) natural capital (see Fig. 2). Table 1 shows how QOL indicators are identified guided directly by the liberal concept of socio-economic development.

Of course, various dimensions of capital can be construed differently. There has been a recent surge in indicators research related to the concept of social capital (Putnam 2000). For example, the Boston Foundation conducted an indicators project focused on social capital and surveyed the residents of the metropolitan Boston area (The Boston Foundation 2001). Specifically, social capital was construed as involving two major dimensions: community involvement and interpersonal relationship. Indicators of community

involvement comprised of participation in conventional politics (i.e., voted in national-level elections), political activism (i.e., signed a petition), collaboration with neighbors (i.e., worked with neighbors to fix something), involvement in the arts (i.e., participated in arts activities), faith involvement (i.e., member of faith organization), charity giving (i.e., gave \$ to religious and/or non-religious organizations), and volunteering. Indicators of interpersonal relationships included diversity of friendships (across racial, class, and sexual orientation differences), tolerance of immigrant rights, racial trust (i.e., trust of other racial groups), social trust (i.e., trust in neighbors, co-workers, fellow worshippers, shopkeepers, police), and social connections (i.e., had people to confide in).

The concept of capital, especially social capital, is gaining much popularity in QOL studies and social indicators research. To some extent, there seems to be a movement to focus on social capital indicators of progress as substitute indicators of economic capital. Specifically, the case is made that social capital (or “relatedness”) is more significantly related to subjective well-being than economic indicators (e.g., income, cost of living) (e.g., Berger-Schmitt 2002; Coleman 1988; Haller and Hadler 2006; Helliwell et al. 2009; Knack and Keefer 1997; Putnam 2000).

2.1.2 Stocks and Flows

Another theory that seems to have been embraced by many QOL researchers is Headey’s (1993) concept of stocks and flows. In financial terms, stocks constitute capital account whereas flows make up the current account. Translating the financial concept into psychological concepts, Headey argues stocks reflect the strength of one’s personality (high on extraversion and low on neuroticism), health (positive versus negative health status), social networks (partnered, availability of intimate attachments and friendships), leisure skills and equipment, work skills and equipment, education and general knowledge, and socio-economic status. Flows are satisfaction or dissatisfaction experienced in relation to daily activities in the context of various life domains such as finances, leisure, family, job, friendships, and health. Thus, a person characterized as having a high QOL is likely to possess good stocks and experiences good flows. This concept was used to guide large-scale indicator projects such as the Victorian Quality of Life Panel Study (Headey et al. 1984, 1985)

3 The Concept of Personal Utility

Many QOL indicators projects have been developed guided by the theoretical notion of personal utility (Andrew and Withey 1976; Campbell et al. 1976; Sirgy et al. 2000). The basic premise is that a “community” (i.e., geographic region such as a rural area, a town, state or province, country, etc.) rated high on QOL dimensions is a community in which the community members evaluate their lives positively in terms of dimensions such as overall life, life domains, and/or conditions and services related to the community at large (see Fig. 3).

Thus the focus of indicator projects guided by the personal utility concept involves evaluations or expressions of satisfaction of community members with overall life, life domains (social life, leisure life, family life, spiritual life, etc.), and community conditions and services. Community conditions are, in essence, outcomes of community action. Examples of community conditions include quality of the environment in the community (air, water, land, etc.), rate of change to the natural landscape (deforestation, housing/

Fig. 3 The concept of person utility in QOL indicators projects

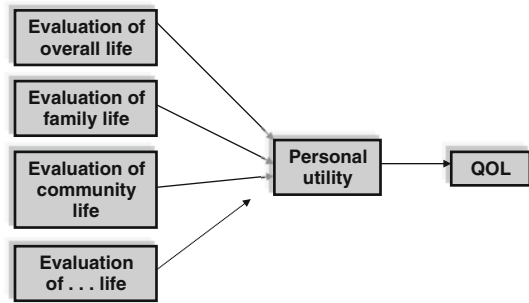


Table 2 QOL indicators guided by the personal utility concept

<i>Evaluation of Community Conditions</i>	<i>Evaluation of Life Domains</i>
Economic conditions (e.g., job opportunities, quality of jobs, income and wealth, cost of living)	Community life
Social conditions (e.g., crime and public safety, racial/ethnic relations, social cohesion, education, leisure and recreation)	Neighborhood life
Physical conditions (e.g., incidence of disease, air pollution, noise pollution, land pollution, water pollution, population density, traffic and congestion)	Family life
	Social life
	Leisure life
	Work life spiritual life
	Cultural life
	Love life
	Social life
	Intellectual life
	Political life
	Financial life
	Consumer life
	Material life
<i>Evaluation of Community Services</i>	<i>Evaluation of Life Overall</i>
Government services (e.g., police, fire, refuse, water, transportation, healthcare, education, social services, job training)	
Nonprofit services (e.g., religious, healthcare, social services, education)	
Business services (e.g., banking, shopping malls, department stores, drug stores, supermarkets, automotive)	

commercial development, loss of agricultural land, ridge-line development, etc.), race relations in the community, cost of living in the community, crime in the community, ties with people in the community, and neighborhood and housing conditions. These conditions can be classified in terms three sets of community conditions: (a) economic, (b) social, and (c) physical (see Table 2). Note that many community conditions are outcomes of community action. Community action occurs through community organizations or services. Community services are organizations and institutions within the community that serve particular needs of community residents, and ultimately affect community outcomes or conditions. Community services are typically grouped in three major categories: (a) business organizations, (b) non-profit organizations, and (c) government organizations (e.g., Sirgy et al. 2000; see Table 2). Business organizations that serve the needs of community residents are quite varied. Examples include department stores, grocery stores, discount stores, specialty stores, shopping malls, banks and investment services, realty companies, medical facilities, private schools, movie theatres, restaurants, automobile dealers, telecommunication and media services, etc. Non-profit organizations may include adoption/foster care services, non-profit counseling/support services, non-profit cultural/recreation services, non-profit educational services, non-profit legal services, non-profit

senior citizen services, non-profit healthcare facilities, among others. Government organizations include law enforcement, fire protection, transportation, public utilities, public recreation facilities, public schools, among others.

It is important to note that the concept of personal utility is grounded in the subjective experience of community members (Andrew and Withey 1976; Campbell et al. 1976). That is, it is not the “objective” state of community conditions and services that count. Instead, personal utility refers to the utility extracted by individual community members as they perceive these community conditions and services. Therefore, community indicators projects guided by the theoretical notion of personal utility tend to take shape through subjective indicators involving community members’ assessment of quality of community conditions and services—in other words, perceived community QOL.

Typically, community indicator projects guided by the concept of personal utility employ community surveys to capture residents’ perception and evaluation of community conditions and services (e.g., Proshansky and Fabian 1986; Shin 1980; Widgery 1982). Because of the subjective nature of these indicators, emphasis is placed on primary data collection instead of compiling secondary data.

Several mini-theories subsumed under the big umbrella of personal utility theory have gained much notoriety in the last 30 years or so. These include (a) bottom-up theory, (b) hedonic psychology, (c) social judgment theory, (d) positive/negative affect, (e) human flourishing, (f) flow and engagement, and (g) purpose and meaning in life.

3.1 Bottom-up Theory

Bottom-up theory is very popular in QOL studies (see Diener 1984; Diener et al. 1999, for literature reviews). Bottom-up theory underscores the notion that overall global evaluations of life satisfaction are a function of evaluations made in various life domains such as family life, social life, leisure life, financial life, community life, spiritual life, and so on. In other words, evaluations of life domains influence the evaluation of life overall, especially important life domains. For example, if a person views work life as very important, overall evaluation of work life is likely to influence his/her overall evaluation of life at large.

Many indicator projects and QOL measures use bottom-up theory implicitly or explicitly. For example, Michael Frisch developed his Quality of Life Inventory or QOLI (Frisch 2006). The QOLI is a measure of QOL that instructs respondents to rate their satisfaction of their life domains such as health, self-esteem, goals and values, money, work, pay, learning, helping, love, friends, children, relatives, home, neighborhood, and community. Respondents are also asked to rate the relative importance of the 16 life domains. Another widely used QOL measure based on bottom-up theory is the Personal Well-Being Index or PWBI (Cummins et al. 2003). Robert Cummins and his wide network of colleagues worldwide have a program of research related to the PWBI, which proposes that satisfaction with life is directly influenced by satisfaction in seven different life domains.

Many large-scale indicator projects have developed their own version of QOL indices based on bottom-up theory. The large-scale indicators projects conducted by Andrew and Withey (1976) and Campbell et al. (1976) in the United States are good examples of QOL measures guided by bottom-up theory. Another good example of a large-scale indicators project guided by bottom-up theory is the GESIS project (Noll 2002). Heinz-Herbert Noll leads the GESIS’ system of measures that includes measures of satisfaction with the various life domains and the perceived importance of these domains. Many national level

statistics bureaus have developed their own indicators projects that mimic the GESIS measures of QOL—examples include Statistics England, Statistics New Zealand, Eurostat, Statistics Italy, and the Gallup World Poll.

3.2 Hedonic Psychology

Much of the research done by scholars such as Daniel Kahneman and Arthur Stone (e.g., Dockray et al. 2010; Dolan and Kahneman 2008) focuses on conceptualizing and operationalizing measures of subjective well-being using concepts from hedonic psychology. The focal point of this theoretical paradigm is subjective well-being can best be conceptualized in terms of momentary feelings of positive and negative affect captured through a variety of methods such as the immediate sampling method, end-of-day diaries, the recall-of-yesterday method, and the day-reconstruction method. These methodological approaches to capturing subjective well-being were initially suggested by Daniel Kahneman and his work on “objective well-being” (Kahneman et al. 2004).

There are a number of large-scale indicator projects that have used hedonic measures of QOL. For example, Statistics Netherlands use a hedonic measure with a longer time frame (weeks instead of days).

3.3 Social Judgment Theory

Social judgment theory posits that people do make judgments about their life overall or certain aspects of their lives (e.g., community well-being) using some reference (or standard of comparison). The Easterlin Paradox is essentially based on social judgment theory (Easterlin 1974). The argument is that the impact of income on subjective well-being depends on standards of comparisons that people use in making evaluations about their standard of living. These standards of comparison change over time according to the individual’s expectations and social comparisons.

Another social judgment theory that has gained much notoriety in QOL research is Alex Michalos’ multiple discrepancies theory (Michalos 1985; Lance et al. 1995). Michalos’ theory helps us understand how people make global evaluations about their life using standards such as the ideal life, the deserved life, past life, current life, future life, etc. (cf. Meadow et al. 1992; Sirgy et al. 1995). Other mini-theories subsumed under social judgment theory include social comparison theory (see Diener and Fujita 1997), goals and aspirations (e.g., Emmons 1992; Carver et al. 1996; Kasser and Ryan 1996), adaptation and coping (e.g., Brickman et al. 1978; Mehnert et al. 1990), among others.

QOL researchers developed many QOL measures based on social judgment theory. Examples include the Satisfaction with Life Scale (Pavot and Diener 1993; Pavot et al. 1991), the Congruity Life Satisfaction measure (Meadow et al. 1992; Sirgy et al. 1995), the Delighted-Terrible Scale (Andrew and Withey 1976), the Cantril Ladder (Cantril 1965), the Happiness Scale (Veenhoven 1996), and the like. The vast majority of these operationalizations of subjective well-being can be explained using social judgment theory of well-being. There are many large-scale indicator projects that employ such measures of QOL (e.g., the Gallup World Poll, GESIS).

3.4 Positive/Negative Affect

There is a research program in QOL studies demonstrating that the determinants of positive affect of well-being may be different from the determinants of negative affect. Therefore,

positive affect should be captured differently from negative affect (i.e., positive and negative affect are two separate dimensions and not polar opposites of the same dimension). Much research by Diener and his colleagues have demonstrated this notion (e.g., Diener and Emmons 1984).

The concept of positive/negative affect has been adopted by a number of national statistical bureaus. For example, the survey from the U.K. (and the U.K. statistical agencies) employ Bradburn's (1969) Affect Balance Scale, which assesses the balance of positive and negative affect experienced during the past 4 weeks. This measure is the most widely used measure of QOL based on positive and negative affect.

Other well-known measures based on positive/negative affect are the PANAS measure (Watson et al. 1988) and the SPANE (Diener et al. 2010). Both measures produce a score for positive feelings about life overall, a score for negative feelings, and the two are combined to create a balance score. The Gallup World Poll (a very large-scale indicators project) employs measures of positive and negative affect.

3.5 Human Flourishing, Self-Determination, and Psychological Well-Being

In recent years a number of psychological theories of human flourishing have been developed. These theories are essentially based on early humanistic psychology theories. For example, Carol Ryff (Ryff 1989; Ryff and Singer, 1998), and Ryan and Deci (2000) suggest that there are several universal human psychological needs, such as the need for competence, relatedness, and autonomy that contribute to human flourishing. Keyes (2002) argues that the presence of mental health is flourishing in life, and the absence of mental health is languishing in life. "Mental health" is thus a syndrome of symptoms of both positive feelings and positive functioning in life. Further, Fredrickson's (2001) broaden-and-build theory of positive emotions suggests that cultivating positive emotions is useful for building resilience to stressful events. In essence, positive emotions enhance coping behavior.

A number of QOL measures were developed guided by the theory of human flourishing. For example, the most popular QOL measure based on human flourishing theory is Ryff (1989) measure of psychological well-being. This measure is designed to assess six dimensions: self-acceptance, positive relations with others, personal growth, purpose in life, environmental mastery, and autonomy (e.g., Ryff and Keyes 1995; Ryff and Singer 1996). A more recent attempt to capture human flourishing is the Flourishing Scale (Diener et al. 2010). This is a brief 8-item summary measure of the respondent's self-perceived success in important areas such as relationships, self-esteem, purpose, and optimism.

3.6 Flow and Engagement

Csikszentmihalyi (1990, 1997) and Seligman (2002) discuss flow and engagement as basic to human well-being, forming the basis of "psychological capital." The *flow* concept describes an optimal state of mind that individuals similarly report when they are acting with focused and intense involvement in an activity. Flow is a function of the relationship between perceived challenge of a task vis-à-vis the person's skill level. Flow is experienced when the task is both challenging and the individual feels that he or she has the necessary skill to meet the challenge.

Methodologically speaking, the flow and engagement experience have been captured using the experience sampling method or ESM (Csikszentmihalyi et al. 1993; Massimini and Carli 1988). ESM involves contacting subjects several times before, during, and after the

focal activity prompting the subject to record his or her level of arousal and directionality of affect.

A more recent theory of flow and engagement has gained the attention of QOL researchers is eudaimonistic identity theory (Waterman 2005; Waterman et al. 2008). Waterman argues that identity development proceeds most successfully when people identify their best potentials and engage in activities that move them toward realizing those potentials. Engagement in those activities produces feelings of personal expressiveness. These feelings, in turn, reinforce the motivation that people feel to continue to engage in those activities.

3.7 Purpose and Meaning in Life

QOL researchers have shown that the concept of purpose and meaning in life plays a very important role in subjective well-being. They make reference to ideas developed by Victor Frankl (1963, 1967) and the panoply of subsequent writings (e.g., Battista and Almond 1973; Steger et al. 2008). Much of these writings support the notion that purpose and meaning are beneficial to human functioning. People who are aware of what life aspects are most vital and live their lives consistently with those values are likely to experience high levels of subjective well-being.

Examples of QOL measures based on the concept of purpose and meaning in life include Palomar (1997) that asks questions such as “How do you feel about your sense of purpose in life?” More recently, Schulenberg and Melton (2010) have provided some evidence of construct validity in relation to the Purpose-in-Life (PIL) measure (Chamberlain and Zika 1988; Dyck 1987; Hicks and King 2007; Melton and Schulenberg 2008; Morgan and Farsides 2009). Respondents express the extent to which they feel enthusiasm in living, whether they feel life is exciting, if they have clear life goals, whether the life they live has been worthwhile, whether they have a reason for being alive, whether the world is meaningful, and whether they feel they have a life purpose.

4 The Concept of Social Justice

Many community planners and indicator researchers develop community indicators projects guided by the implicit notion that community QOL is a community in which its members enjoy a high level of *social justice* (see Fig. 4).

What is social justice? Perhaps we can quote a famous philosopher, John Rawls (1971, 1975), who devoted much of his philosophical writings to the concept of social justice.

Fig. 4 The concept of social justice in QOL indicators projects

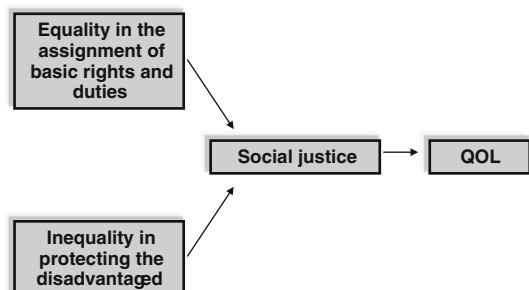


Table 3 QOL indicators guided by the social justice concept

Equality in basic rights and duties	Inequality to benefit the least advantaged
<i>Right to meet basic needs</i> (e.g., % of population below poverty line; government entitlement programs directed to the poor and equitable appropriations within a community)	<i>Children</i> (e.g., under five mortality rate, one-year olds fully immunized against tuberculosis and measles; teen pregnancy rate, low-birth weight infants, underweight children under age five)
<i>Right to safety</i> (e.g., crime rate; government programs and expenditures to combat community crime and equitable appropriations in a community)	<i>Women</i> (e.g., ratio of females graduating high school to males; ratio of females unemployed to males; ratio of median wage of females to males; educational scholarships available to females relative to males; job training and assistance programs available to females relative to males)
<i>Right to employment</i> (e.g., unemployment, educational attainment; literacy; job skills; job training programs and equitable appropriations within a community)	<i>Minorities</i> (e.g., ratio of minorities graduating high school to non-minorities; ratio of minorities unemployed to non-minorities; ratio of median wage of minorities to non-minorities; educational scholarships available to minorities relative to non-minorities; job training and assistance programs available to minorities relative to non-minorities)
<i>Right to a healthful environment</i> (e.g., air pollution, water pollution, land pollution, noise pollution; incidence of disease; government programs to combat environmental pollution and equitable appropriations within a community)	<i>The Poor</i> (e.g., educational scholarships available to the poor relative to the non-poor; job training and assistance programs available to the poor relative to the non-poor; government expenditures to the poor relative to the non-poor)
<i>Duty to pay taxes</i> (e.g., % of undeclared work; government programs to reduce tax evasion within a community)	<i>The Disabled</i> (e.g., ratio of disabled graduating high school to non-disabled; ratio of disabled unemployed to non-disabled; ratio of median wage of disabled to non-disabled; educational scholarship available to the disabled relative to the non-disabled; job training and assistance programs for the disabled relative to the non-disabled; government expenditures to the disabled relative to the non-disabled)
<i>Duty to vote</i> (e.g., % of eligible voters voting; government programs to increase voter turnout within a community)	

Society is considered *just* if two distinct principles are met. The first principle of a *just society* holds when there is equality in the assignment of basic rights and duties. The second principle of the just society holds when inequalities are justified to benefit the least advantaged members of the society.

Table 3 shows examples of community indicators that reflect Rawls' concepts of equality in basic rights and duties and inequalities to benefit the least advantaged members of the community. Equality in basic rights and duties can be viewed in terms of at least six dimensions: (a) right to meet basic needs, (b) right to safety, (c) right to employment, (d) right to a healthful environment, (e) duty to pay taxes, and (f) duty to vote. The table also shows examples of community QOL indicators capturing these basic rights and duties of community residents.

4.1 Equality in the Assignment of Basic Rights

Gender equality is an example of a concept that drives many indicator projects. It has become an important goal of sustainable development and is reflected in every chapter of Agenda 21—acknowledging the contribution of women to sustainable development (for an overview of international agreements on women and sustainable development issues

originating from UN summits and conferences in the 1990s, see Hemmati and CSD NGO Women's Caucus 2000).

A specific gender disparity example grounded in education may further illustrate how the concept of social justice guides the development of QOL indicator projects. Consider the UN-Millennium Development Goals. To promote gender equality and empower women, one should strive to eliminate gender disparity in primary and secondary education preferably by (date) and in all levels of education no later than (date). Specific indicators that are inherent in these objectives may include ratio of girls to boys in primary/secondary/tertiary education and ratio of literate females to males among 15–24-year olds (Narayana 2009).

The United Nations Development Programme (UNDP) has done extensive work on gender disparity indicators grounded in social justice theory. For example, there are two gender equality measures developed by UNDP: the Gender-related Development Index (GDI) and the Gender Empowerment Measure (GEM) (UNDP 1995). UNDP's work in developing the GDI and GEM has been important in raising attention for gender inequality in international policy debates. The GDI is viewed as a measure of relative well-being designed to capture gender disparity. Based on the Human Development Index (HDI), it employs variables such as adjusted income, education, and health. The GEM is designed to capture relative female economic and political power using indicators such as share of women in parliament; share of women in technical and professional, and management and administrative positions; and income.

Another example of indicators work designed to take into account gender disparity is the Genuine Progress Indicator (GPI), developed in 1995 by Cliff Cobb, an economist with the San Francisco think-tank Redefining Progress (www.rprogress.org) (see Talberth et al. 2006). The GPI uses the GDP figures and makes adjustments for income inequality between rich and poor; adds the value of unpaid housework, volunteer services, services from household infrastructure and streets/highways; and subtracts the value of lost leisure time, and the costs of family breakdown, commuting time, unemployment/underemployment, crime, auto accidents, and long-term environmental degradation, air pollution, water pollution, ozone depletion, noise pollution, loss of farm land, loss of forests, loss of wetlands; and adjusts for net capital formation and net foreign borrowing (Anielski 2007, p. 33).

The concept of basic rights also is inherent in much of United Nations work on consumption equity (Hemmati 2000). Social justice dictates that consumption of basic goods and services is a basic human right—a right to freedom from poverty and want. There are widespread disparities of what people consume. For example, 20% of the highest income countries account for 86% of total private consumption, while the poorest 20% account for only 1.3%. The richest fifth consume 58% of total energy, the poorest fifth consume less than 4%. Out of 4.4 billion people in the developing world, nearly three-fifths lack access to sanitation, a third have no access to clean water, a quarter do not have adequate housing and a fifth have no access to modern health services.

4.2 Inequalities to Benefit the Least Advantaged Members of Society

With respect to Rawls' second principle of social justice (inequalities are justified to benefit the least advantaged members of the society), Table 3 identifies examples of least advantaged members of society: children, women, minorities, the poor, and the disabled. The tables also shows examples of community indicators related to each group.

There are many indicator projects that focus on the least advantaged members of society. For example, some of the popular QOL indicators projects related to children include the Annie Casey Foundation's KIDS COUNT (O'Hare and Bramstedt 2003) and The Foundation for Child Development's Index of Child Well-Being (Land et al. 2001). With respect to the elderly, some of the most widely used QOL indices include the Life Satisfaction Index A (Neugarten et al. 1961) and its shortened version, the Life Satisfaction Index Z (LSIZ; Wood et al. 1969), which consists of 13 of the 20 LSIA items (see Larson 1978, for literature review).

5 The Concept of Human Development

The basic premise underlying the concept of human need satisfaction is the notion that a community characterized as high in QOL is one that plays a significant role in satisfying people's developmental needs. Developmental needs refer to a hierarchy of lower and higher-order needs such as health, safety, and economic needs (lower-order needs), as well as social, esteem, actualization, knowledge, and aesthetics needs (higher-order needs). Lower-order needs are basic needs and more pre-potent than higher-order needs (Maslow 1954).

5.1 Basic Needs (Lower-Order)

It is difficult to achieve higher-order needs without first and foremost attending to lower-order needs (Maslow 1954). Many QOL researchers have well-argued this point. For example, Venhoveen (1988, 1991) was able to build a case for the influence of basic needs satisfaction and subjective well-being. People with higher income levels can easily satisfy their basic needs (food, housing, health, etc.) and, therefore, are more likely to experience higher levels of subjective well-being. A case in point is the United Nations Development Programme work on poverty (UNDP 2005). UNDP equates poverty with disease, high infant mortality, low life expectancy, malnutrition, hunger, lack of access to water, education, knowledge, public and private resources, housing, clothes, and security. The Human Development Index (HDI), the UNDP's focal indicators project, involves the average of three human development dimensions: living standard (measured through GDP per capita), health (measured in terms of life expectancy at birth), and education (calculated through adult literacy for two-thirds and the average school enrolment of adults above 25 years for the remaining two-thirds).

To achieve a high level of quality of life, community members have to satisfy the full spectrum of their developmental needs—both lower- and higher-order needs. The challenge for public policy officials is to plan and implement programs and policies designed to enhance need satisfaction (the full spectrum of development needs of the community residents). Indicators capturing the full spectrum of need satisfaction would allow for the assessment and monitoring of progress towards that end (see Fig. 5).

Table 4 shows examples of community indicators capturing lower- and higher-order need satisfaction. Programs and policies targeting lower-order needs can be viewed in terms of nine dimensions: (a) environmental pollution, (b) disease incidence, (c) crime, (d) housing, (e) unemployment, (f) poverty and homelessness, (g) cost of living, (h) community infrastructure, and (i) illiteracy and lack of job skills. In contrast, programs and policies targeting higher-order needs involve nine different dimensions: (a) work productivity and income, (b) consumption of non-basic goods and services, (c) leisure and recreational activities, (d) educational attainment, (e) community landscape, (f) population density and crowdedness, (g) arts and cultural activities, (h) intellectual activities, and (i) religious activities.

Fig. 5 The concept of human development in QOL indicators projects

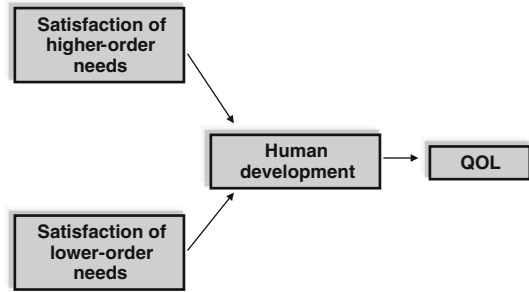


Table 4 QOL indicators guided by the human development concept

Indicators of satisfaction of lower-order needs	Indicators of satisfaction of higher-order needs
Measures of <i>environmental pollution</i> (air, water, land, and noise) and environmental programs to reduce environmental ill being	Measures of <i>work productivity and income</i> and community programs to enhance productivity and quality of work life
Measures of <i>disease incidence</i> and healthcare efforts to reduce health-related ill being	Measures of <i>consumption of non-basic goods and services</i> and community programs to enhance consumer well being
Measures of <i>crime</i> and safety and law enforcement programs to reduce crime and enhance public safety	Measures of quality of <i>leisure and recreation activities</i> and community programs to enhance leisure well being
Measures of <i>housing conditions</i> and community programs to meet housing needs	Measures of <i>educational attainment</i> and community programs to enhance education well being
Measures of <i>unemployment</i> and community programs to reduce work ill being	Measures of the quality of <i>community landscape</i> and community beautification programs
Measures of <i>poverty/homelessness</i> and community programs to assist the poor and the homeless	Measures of <i>population density and crowdedness</i> and community programs to reduce crowdedness and congestion
Measures of <i>cost of living</i> related to basic goods and services and community programs to reduce the cost of these basic necessities	Measure of <i>arts and cultural activities</i> and community programs to enhance cultural well being
Measures of <i>community infrastructure</i> (e.g., utilities, roads, transportation, telecommunications) and community programs to maintain a minimum level of infrastructure	Measures of <i>intellectual activities</i> an community programs to enhance knowledge well being
Measures of <i>illiteracy and lack of job skills</i> and community efforts to eradicate illiteracy and enhance job skills	Measures of <i>religious activities</i> and community programs to enhance spiritual well being

5.2 Higher-Order Needs

In contrast lower-order needs, programs and policies targeting higher-order needs involve nine different dimensions: (a) work productivity and income, (b) consumption of non-basic goods and services, (c) leisure and recreational activities, (d) educational attainment, (e) community landscape, (f) population density and crowdedness, (g) arts and cultural activities, (h) intellectual activities, and (i) religious activities (see Table 4).

There are many indicators projects that are developed with a special focus on higher-order needs. For example, Lloyd and Auld (2002) and Michalos and Zumbo (2003) conducted an indicators project focusing on the broad topic of leisure and its relationship to the QOL. Michalos (2005) conducted an indicators project that has focused exclusively on arts and its relationship to QOL (cf. Michalos and Kahlke 2008).

6 The Concept of Sustainability

The World Commission on Environment and Development defines “sustainability” as the effort to meet the needs of the present without compromising the ability of future generations to meet their own needs (Jamieson 2002). Indicators projects guided by the sustainability concept began with a focus on establishing indicators of environmental well-being, which were supplanted by new initiatives taking into account both environmental well-being and human well-being.

6.1 Environmental Sustainability

Early work with the concept of sustainability has focused on capturing environmental well-being exclusively. For example both the Environmental Sustainability Index (ESI) and the Environmental Performance Index (EPI) focus on environmental indicators of well-being (Estes et al. 2005). The ESI involves five dimensions: environmental systems (air, land, water, biodiversity), environmental stresses reductions (air pollution, waste pressure, natural resource management), human vulnerability (exposure to environmental disturbances), social and institutional capacity (ability of institutions to foster effective responses to environmental challenges), and global stewardship (efforts to cooperate with other countries in the management of common environmental problems). The EPI is a short version of the ESI used to develop global scores based on 16 indicators (outcomes) that are policy-oriented (i.e., pre-established policy targets).

The Ecological Footprint (EF) project is yet another good example of indicators strictly focus on environmental issues (Wackernagel and Rees 1995). EF measures the extent of the regenerative capacity of the biosphere is used by consumption and production. A country’s demand-side EF is the total area required to produce food, fiber, and timber that its inhabitants consume, absorb the waste these products generate, and provide areas for infrastructure. A country’s supply-side EF is the productive capacity of the biosphere to provide biological resources and services that can best serve humanity (Moran et al. 2008).

6.2 Environmental and Human Sustainability

Many QOL researchers, who use terms such as “sustainability,” “sustainable community,” “sustainable development,” and “sustainable growth,” tend to think in terms of the interrelationship between the human and environmental dimensions of sustainability. Consider also the work of Nordhaus and Tobin (1973) who built a Measure of Economic Welfare (MEW) by subtracting from total private consumption a number of components that do not contribute to well-being (e.g., commuting) and by adding monetary estimates of activities that contribute to well-being (e.g., leisure). MEW was further transformed into an Indicator of Sustainability of Economic Welfare (ISEW) by Cobb and Daly (1989) and further refined by Cobb and Cobb (1994) by deducing the costs of water, of air, and of noise pollution from consumption, etc.

An example of a sustainability index that focuses on economic efficiency while taking into account issues of environmental sustainability is the Osberg and Sharpe’s (2002) Index of Economic Well-being (IEWB). The IEWB captures economic prosperity (based on measures of consumption), social equity (e.g., reduction in inequalities), and environmental sustainability (e.g., costs of CO₂ emissions per capita). Another good example of this tradition is the System of Environmental Economic Accounting (SEEA) established in 1993 (see Alfsen et al. 2006; Repetto et al. 1989).

Fig. 6 The concept of sustainability in QOL indicators projects

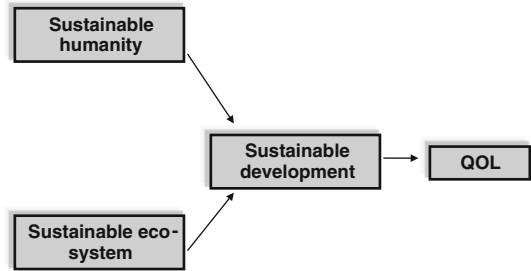


Table 5 QOL indicators guided by the sustainability concept

Indicators of sustainable humanity	Indicators of sustainable ecosystem
<i>Health and population</i> (i.e., physical and mental health, disease, mortality, fertility, population change)	<i>Land</i> (i.e., diversity and quality of forests, farmland and other land ecosystems, including their modification, conversion, and degradation)
<i>Wealth</i> (i.e., income, poverty, inflation, employment, infrastructure, basic needs for food, water, and shelter)	<i>Water</i> (i.e., diversity and quality of inland water and marine ecosystems, including their modification by dams and other structures, pollution and water withdrawal)
<i>Knowledge and culture</i> (i.e., education, communication)	<i>Air</i> (i.e., local and indoor air quality)
<i>Community</i> (i.e., institutions, law, crime, racial and ethnic strife)	<i>Resource use</i> (i.e., energy and materials, waste generation and disposal, recycling)
<i>Equity</i> (i.e., distribution of benefits and burdens between social groups)	

Environmental concerns cannot be isolated from the economy. Likewise, economic matters have ramifications in the social realm. The economy exists entirely within society or “equity,” but society is more than just the economy. Human relationships, the arts, religion, etc. are all part of society. Finally, society itself exists within the natural environment (see Fig. 6).

In other words, based on the broadened conception of sustainability, “sustainable communities” are regarded as those that enhance the economic, environmental, and social characteristics of a community so its members can lead healthy, productive, enjoyable lives—higher quality of life. The three sets of QOL characteristics (economic, environmental, and social) are also referred to as “three E’s of Sustainability” (economy, environment, equity) and are employed by many indicators projects. For example, the Rio Summit in 1992 referred to sustainable development in terms of economic efficiency, social equity, and environmental sustainability. These three pillars underlying the sustainability movement led to the adoption of Agenda 21 (see Bovar et al. 2008 for more details).

Other QOL researchers buy into the notion that the concept of sustainability means equal treatment of people and the ecosystem. In other words, sustainable development is a combination of human well-being and environmental well-being. One cannot have a good human condition in a bad environment—indicators of human well-being in a community have to be balanced with indicators of the environmental well-being. Table 5 shows dimensions and indicators commonly used by sustainable development researchers.

7 Capabilities and Functioning

The capabilities and functioning approach is attributed to Amartya Sen's work (1987, 1999). This approach argues that a person's life can be viewed in terms of a combination of doings and beings—referred to as “functionings.” In turn, QOL is assessed in terms of a person's freedom to choose among the various functionings. This freedom to choose is referred to as “capabilities.” Specifically, functionings refer to the activities and situations that people consider as important in their lives. These can be captured through observable achievements such as health status, level of education, and current employment status (cf. Alkire 2002). Capability, in this sense, is defined as the ability to achieve “functionings” or the things that societies or individuals value and have reasons to value. Functionings or achievements are the end goals of human living, with the capability indicating the freedom or choice that one has to experience the end results of functionings (see Fig. 7).

From a functionings' perspective well-being can be developed in terms of a summary index of people's functionings. In contrast, capabilities focus on the freedom and opportunities people have to engage in certain functionings. For example, low calorie intake (a functioning) may result from poverty (people cannot afford to buy food) or it may reflect a choice as in the case of fasting. Fasting, in this case, reflects an element of choice or freedom to choose among optional functionings. Similarly, education provides freedom to earn a living and pursue a desired lifestyle. Thus, the desired lifestyle can be viewed as the outcome or functioning, whereas education is the means for achieving it (i.e., capability) (Fig. 7).

The conceptual framework of the Human Development Report (issued annually by the United Nations Development Programme) is essentially based on the concepts of functionings and capabilities (Anand and Sen 2000; Hicks 1997). Human development therefore should enhance people's achievements, freedoms, and capabilities. Well-being is achieved through a process of expanding the real freedoms that people enjoy (Sen 1999). Freedom is inherently desirable because freedom changes the individual from a passive object to an active agent shaping his or her own destiny. This approach puts human capital (i.e., human effort and skill) above physical capital, and hence “human development” above “economic development” (Fukuda-Parr 2002).

Nussbaum (2000) applied the concept of capabilities and functionings to describe the well-being of women across the globe. Rychen and Salganik (2003) described a set of competencies that ultimately is a prerequisite to human functionings and well-being.

There have been many attempts to operationalize the capability approach to measure poverty, deprivation, and QOL (e.g., Alkire 2002; Berenger and Verdier-Chouchane 2007; Nolan and Whelan 1996; Ringen 1995; Wagle 2008). Furthermore, the UNDP (1996, 2006) used the capability approach to develop a poverty measure focused on health and educational indicators (UNDP 1996). The more regularly published human development indices also incorporate income and unemployment measures, indicators capturing capabilities (UNDP 2006).

Many health-related indicators projects are now using the concept of functioning to guide their indicators efforts. For example, Jennifer Madans at the 2009 conference of the



Fig. 7 The concept of capabilities/functionings in QOL indicators projects

International Society for Quality-of-Life Studies (co-sponsored with the OECD) in Florence (Italy) described the health indicators project of the US National Center for Health Statistics in terms of “functioning.” Functioning was distinguished from related health concepts such as self-reported health status and health-related QOL measures. Furthermore, at the same meeting, the Budapest Initiative was described in terms of determinants of individual functioning, risk factors related to functioning, disease states that interfere with functioning, use of the healthcare system to enhance functioning, and environmental barriers that deter functioning.

8 Conclusion

I described in this paper six major theoretical concepts that are inherent in many international, national, and community QOL indicator projects. These theoretical concepts are: (a) socio-economic development, (b) personal utility, (c) just society, (d) human development, (e) sustainability, and (f) functioning. Doing so I tried to show how these theoretical concepts help guide QOL researchers to select and develop QOL indicators that are significantly and qualitatively distinct.

I argued upfront that understanding the theoretical basis of one’s indicators project is important because understanding the theoretical basis of an indicators project helps QOL researchers develop and recommend meaningful public policies.

I like to end with a call for action. It is imperative that QOL researchers invest much more time and effort to further develop the theoretical basis of their indicators projects. It is imperative to do so to help establish the nomological validity of the QOL constructs inherent in the indicators projects. Doing so is imperative to the further development of QOL theory and the further refinement of QOL constructs and measures. As noted by Schwab (1980),

It is important to specify probable (hypothetical) linkages between the construct of interest and measures of other constructs....Such theorizing serves two important purposes for construct validation. First, specifying inter-construct linkages can serve to provide clarification of the construct under consideration... Second, specification of inter-construct linkages can serve as a valuable input in establishing construct validation procedures (p. 14).

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