

TOWARDS THEORETICALLY SOUND AND DEMOCRATICALLY LEGITIMATE INDICATORS OF WELLBEING IN BELGIUM « WELLBEBE»

P.-M. BOULANGER, A.-L. LEFIN, T. BAULER, N. PRIGNOT, L. VAN OOTEGEM, S. SPILLEMAECKERS, B. DEFLOOR.



ENERGY



TRANSPORT AND MOBILITY



AGRU-FUUD



HEALTH AND ENVIRONMENT



CLIMATE



BIODIVERSITY











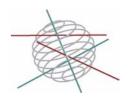
ATMOSPHERE AND TERRESTRIAL AND MARINE ECOSYSTEMS



TRANSVERSAL ACTIONS



SCIENCE FOR A SUSTAINABLE DEVELOPMENT (SSD)



Transversal Actions



FINAL REPORT PHASE I

TOWARDS THEORETICALLY SOUND AND DEMOCRATICALLY LEGITIMATE INDICATORS OF WELL-BEING IN BELGIUM

« WELLBEBE»

SD/TA/09A

Promotors

PAUL-MARIE BOULANGER
IDD
EDWIN ZACCAÏ
ULB
LUC VAN OOTEGEM
HIVA - KUL

Authors

ANNE-LAURENCE LEFIN
IDD
TOM BAULER & NICOLAS PRIGNOT
ULB - IGEAT
SOPHIE SPILLEMAECKERS & BART DEFLOOR
HIVA - KUL











Rue de la Science 8 Wetenschapsstraat 8 B-1000 Brussels Belgium

Tel: +32 (0)2 238 34 11 - Fax: +32 (0)2 230 59 12

http://www.belspo.be

Contact person: Marc Van Heuckelom

+32 (0)2 238 35 55

Neither the Belgian Science Policy nor any person acting on behalf of the Belgian Science Policy is responsible for the use which might be made of the following information. The authors are responsible for the content.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without indicating the reference :

P.-M. Boulanger, A.-L. Lefin, T. Bauler, N. Prignot, L. Van Ootegem, S. Spillemaeckers, B. Defloor. *Towards theoretically sound and democratically legitimate indicators of well-being in Belgium*. Final Report Phase 1. Brussels: Belgian Science Policy 2009 – 54 p. (Research Programme Science for a Sustainable Development)

TABLE OF CONTENT

TABLE OF CONTENT	3
LIST OF TABLES	4
LIST OF FIGURES	4
ACRONYMS	4
INTRODUCTION	
I. WELL-BEING INDICATORS AND SUSTAINABLE DEVELOPMENT	
1. An improved GNP or a genuine well-being index?	7
2. A SUBJECTIVE, OBJECTIVE OR MIXED CONCEPTION OF WELL-BEING?	8
2.1. Criteria and requirements for useful indexes	
2.2 Normative considerations	
II. WHAT DO WE KNOW ABOUT WELL-BEING?	
1. On what does Subjective Well Being depend?	
1.1. A qualitative method: the focus groups	
1.1.1 Methodology	
1.1.2. The focus groups' sesssions	
1.1.3. Analysis	
1.2. The relations between personnal characteristics and subjective well-being in a nutshell	
Income	
Age and gender	19
Education	
Employment	
ActivityHealth	
Attitudes and beliefs	
Social relations	
Wider environment	
In general, people suffer from losses more than they benefit from gains	
Freedom in conjunction with control matters	
2. ON WHAT DO HEALTH AND LONGEVITY DEPEND?	
2.1. Social status matters	
2.2. Two important balances: demands/control and efforts/rewards	
III. PUTTING IT ALL TOGETHER?	28
1. THE FUNCTIONINGS AND CAPABILITIES APPROACH	30
2. A DYNAMICAL INTERPRETATION OF THE CAPABILITY APPROACH	32
2.1. Functionings as capabilities	32
2.2. Capabilities and life-chances	
2.3. Life chances in Veehoven's framework	
2.4. What functionings-capabilities?	
2.4.1. A Q Methodology exercise	
2.4.3. Summary: an extended and dynamic conception of well-being.	
3. TOWARDS AN OPERATIONALIZATION OF THE DYNAMIC FRAMEWORK	
IV. CONCLUSIONS	49
REFERENCES	50
ANNEXES	54

LIST OF TABLES

Cable 1: Sample of focus groups' participants				
LIST OF FIGURES				
FIGURE 1. THE DEMAND-CONTROL PROBLEM AS A STRESS-COPING EXAMPLE. SOURCE: BRUNNER AND MARMOT (2006)				
ACRONYMS				
CA: Capability Approach CEDD: Centre d'Etudes du Développement Durable ISEW: The Index of Sustainable Economic Welfare GDP: Gross Domestic Product GNP: Gross National Product GPI: Genuine Progress Indicator GS: Genuine Savings HDI: Human Development Index HIVA: Hoger Instituut Voor de Arbeid IDD: Institut pour un Développement Durable KUL: Katholiek Universiteit van Leuven LETS: Local Exchange Trading System MDP: Measure of Domestic Progress NSFH: National Survey of Families and Households OLS: Ordinary Least Squares ULB: Université Libre de Bruxelles UNDP: United Nations Development Program SWB: Subjective Well-Being				

WSL: Wisconsin Longitudinal Study

INTRODUCTION

It is widely acknowledged that, if the production and consumption patterns of affluent societies have brought about unprecedented level of material welfare, their requirements in terms of environmental resources and functions are such that they could not be extended to the whole earth population or to the future generations. On the other hand, the comparison between indicators of economic performance (GDP/capita) and other more specialised indicators of well-being such as the Genuine Progress Indicator, the Fordham Institute index of social health - whatever their shortcomings shows that, almost since the years 1973, more economic growth has ceased to be synonymous of more well-being. If it was to be confirmed by more reliable and truthful well-being indicators, it would demonstrate that it is actually possible to be as – or maybe even more – well-off with less material consumption and, therefore, less environmental strain. As long as GDP's growth correlated almost perfectly with improvement in well-being, there was no use of other measures of the effectiveness of our production and consumption patterns in bringing about well-being and happiness. Nowadays, because the historical marriage of economic growth and well-being is broken, other well-being indicators become indispensable. The demand of such indicators is emerging strongly, both at the international and national levels. In a context where sustainable development is at the policy agenda, population's well-being is seen as an important aspect to take into account when developing alternative models of society, complementary to more traditional socio-economic development objectives.

By definition, an indicator is an observable variable – or a combination of observable variables – used to account for a non-observable reality, generally corresponding to an abstract concept such as: democracy, justice, freedom, well-being, etc. The objective of an indicator is to give an empirical expression of the concept, to operationalize it in a way as to be able to describe a social situation or a trend, to evaluate public policies and to set quantitative objectives for it. First and foremost, it involves knowing of which concept it is supposed to be the indicator. In other words, what does it measure exactly? Objective 'things' or subjective perceptions? Social objects or individual characteristics? Processes or states? Building a potentially successful indicator of well-being is first of all a question of agreeing on a definition of the *concept*, and, moreover, a full *conception* of it, i.e. a definition of its main dimensions, the way it is structured, the principles that underlie it, etc.

On which conception of well-being should a satisfactory indicator be based? First of all, it should be internally consistent and compatible with the bulk of current scientific knowledge. However, when dealing with normative concepts, we cannot be content with scientific validity only. We need to make sure that the conceptions of well-being underlying the future indicator correspond to those shared by the population, or, what is not exactly the same thing, that the population would eventually endorse such a conception of well-being, at the end of a reflexive process.

These two requirements ('theoretical soundness' and 'democratic legitimization') translated, in the WellBeBe project, in two lines of research. The first one was dedicated to a literature-based analysis, aiming at identifying and assessing the main conceptual frameworks for well-being and synthesizing the information brought by the factual sciences in that respect. The second one consisted in an

empirical field-work, aiming at uncovering the divergences and convergences of people themselves in their definition of the 'good life' by using two techniques, namely focus groups and *Q* methodology.

The different Working Papers, on which this final report is based, are developing further each of the particular research strands, and can be consulted and downloaded from the website of the Belgian Science Policy (www.belspo.be/FEDRA) and from the website of the research project (http://www.wellbebe.be).

The present report is structured as follows:

The first part poses the question of the kind of well-being indicator we are looking for, in the context of sustainable development.

The second part synthesises factual information (from literature and from our own empirical work) on components and determinants of subjective well-being and health, taken as the main manifestations of full well-being.

Finally, **the third part** is a proposition for an integrative conceptual framework for assessing well-being in Belgium.

I. WELL-BEING INDICATORS AND SUSTAINABLE DEVELOPMENT

1. AN IMPROVED GNP OR A GENUINE WELL-BEING INDEX?

In order to assess whether or not our societies manage to satisfy "the needs and aspirations of current generations", as stated in the oft-cited definition of sustainable development from the Brundtland report, we believe that we need other indicators than GNP. We argue that indicators of well-being could be of a great help to assess the progress made by a society towards sustainable development. As one aim of sustainable development is to satisfy those needs at the least environmental cost, the required indicators should differ from indicators of material production and consumption, so that the latter reflect only a part of how well-being can be considered. Indeed, as long as we identify well-being and material consumption, i.e. as long as both are measured with identical variables, we never know how well-being is affected by additional material consumption and therefore what amount of resources can (and should) be saved for future generations without significant negative change in welfare for current ones.

Well-being of current generations is the "development" side of sustainable development; the amount of productive resources not consumed to produce it or directly invested for the future, its "sustainability" side. While the indicators industry has been flourishing since the publication of the Brundtland report and the Conference on Environment and Development in 1991 in Rio, the only thing on which a consensus has been reached is that GNP (GDP)¹ as it exists is at best insufficient, at worst irrelevant in both respects².

This being said, the current attempts to go beyond that somewhat repetitive criticism of GDP by proposing another indicator follow two different roads.

• The first one, which could be dubbed "extended accounting" (Offer 2006) consists in building a better GNP, a GNP cleared of what should not be included in (defensive expenditures, environmental and social externalities, resources depletion...) and enriched with what should be in (non market goods and services, inequality,...). The Index of Sustainable Economic Welfare (ISEW), the Genuine Progress Indicator (GPI), the measure of Domestic Progress (MDP) and the Genuine Savings (GS) are, amongst others, the most renowned illustrations of this approach, the fourth being somewhat different from the first three in that it attempts to measure changes in assets and capitals while the ISEW, the GPI and the MDP keep the basic flow-orientation of the GNP. Beyond this and other minor differences, they share two important characteristics: the valuation of all components in terms of monetary units and the mixing of development and sustainability elements in one single figure.

¹ GNP: Gross National Product. GDP: Gross Domestic Product.

² For a comprehensive and thorough review of GDP's shortcomings (and others as well) as indicator of progress, see van den Bergh (2007) and Neumayer (2003).

• The second approach consists in firmly turning one's back to GDP and monetary valuations in general and substituting to it a direct, explicit non-monetary indicator of well-being, independent of sustainability. In other words, it considers that well-being and development are one thing and sustainability, another and that they should not be mixed in the same measure. This is, for instance, the road followed by Mike Commons (2007). Sustainable development, he argues, can be summarized by the ratio of well-being on environmental load, in other words, as the number of units of well-being per unit of environmental resource consumed to produce them. In this perspective, sustainable development boils down to efficiency in uses of environmental resource for producing well-being. The numerator of such a ratio consists in an indicator of well-being and the denominator, an index of environmental pressure.

Without denying the usefulness of improving the way we measure (and value) our economic activities (and maybe other activities as well), we think it is preferable to distinguish clearly what is of the order of the means or inputs (the economic activities) and what is of the order of the aims, the objectives, i.e. well-being, quality of life, human flourishing or, in short, human development (outputs). Of course, this doesn't rule out information relative to incomes and wealth (notably on social differences in these matters) as indicator of some capabilities (cf. infra). What is important is to depart from a monetary only or subjective only approach to well-being. Common's idea of 'happy life years' expectancy as the product of life-expectancy and subjective well-being is exemplary in that respect. However it suffers from two drawbacks: the first (that it shares with many other indexes) is that it doesn't account for the social distribution of subjective well-being and health, the second is that it lacks the lower level information, indispensable for giving directions to public action on the factors that determine health and subjective well-being.

2. A SUBJECTIVE, OBJECTIVE OR MIXED CONCEPTION OF WELL-BEING?

Having chosen to develop an autonomous index of well-being instead of trying to improve the GNP, we face a second decisive alternative: shall we adopt an objective, a subjective or a mixed conception of well-being? In short, the subjective component refers to states of minds and the objective one to states of the world, admittedly two very large and encompassing categories. Common, for example, has chosen the last option. His index is the combination of objective and subjective components. Actually, there is only one objective component (life expectancy) and one subjective component (happiness or satisfaction with life), giving to his index simplicity and economy in data manipulation. Yet, this simplicity hides an underlying complexity: life expectancy and satisfaction with life are themselves synthetic variables, even if the latter can be measured with just one simple question. Also, Costanza et al (2007) develop "measures of human needs and happiness that are integrated in a multidimensional, multi-scale concept that contains interacting objective and subjective elements". On the contrary, the UNDP has chosen a different road: its Human Development Index is purely objective, being the combination of three objective realities: disposable income, education and life expectancy. The Fordham Institute index of social health is another example of purely objective index of well-being.

Once this decision taken, a second (actually, a set of) decision has to be made: what basic (objective or subjective or both) elements are we to include in our index? As indicated, the set of the 'states of the world' is almost infinite (denumerable infinite would say mathematicians) and this is probably true also for 'states of minds'. How are we to decide?

2.1. CRITERIA AND REQUIREMENTS FOR USEFUL INDEXES

Hagerty et al. (2001) identified several criteria of scientific soundness, usability and validity that any index of well-being should ideally try to meet, notably.

- 1 The index must have a clear practical purpose, i.e., a public policy purpose.
- 2 The index should help policy makers develop and assess programs at all levels of aggregation.
- 3 The index should be based on time series to allow periodic monitoring and control
- 4 The index should be grounded in well-established theory. The authors insist on the fact that the indicators should allow their users (policy makers in this case) to understand how the indicator is constructed, so that they can predict how the value of the indicator will be modified by new programs. So the criterion is also linked with an external practical justification.
- 5 The components of the index should be reliable, valid and sensitive. Here, 'sensitivity' means that the index should vary with policies inputs. At the same time, the index must be under internal criteria of validity and reliability, but should be designed to change in regard of external outputs.
- 6 The index should be reported as a single number, but can be broken down into components.
- 7 The domains in aggregate must encompass the totality of life experience. This principle is actually submitted to statistical coherence: The different domains that compose the indicator must be statistically correlated with a global measure of well-being and account for a good portion of the variance. So the different domains must be shown to have an important contribution to the global value of the indicator.
- 8 Each domain must encompass a substantial but discrete portion of the well-being construct. This is directly linked with the criterion above. Each domain must be separated, and there should not be too much "overlapping" between domains. Again, this can be statistically tested by measuring the shared variance between domains.
- 9 Each domain must have the potential to be measured in both objective and subjective dimensions. According to the authors, we need both objective and subjective indicators because most of the time objective and subjective measures (general or by domains) do not superpose.
- 10 Each domain within a generic well-being index must have relevance for most people.

These (sound) advices and recommendations mix conceptual, statistical and pragmatic considerations. Maybe one word should be added concerning the normative aspect of social (and especially well-being) indicators building.

2.2 NORMATIVE CONSIDERATIONS

Normative considerations necessarily enter in any definition and measurement of well-being because it carries a judgment on what constitutes a good life, which is also a judgment of what means to be a human being. Furthermore, assessing individual well-being in a given society at a given moment is also evaluating that society at that moment, i.e. what Rawls calls its 'social arrangements', the fabric of institutions, statuses, roles, values and incentives that structure and frame individuals' lives and conceptions of well-being and determine their chances to achieve it. Honneth (2006) maintains that the evaluation of social arrangements in terms of well-being is different from an evaluation in terms of justice, though he acknowledges that there is some overlap between the two processes. At any rate, one can distinguish two different traditions in social and political philosophy. The first tradition can be traced back to Rousseau and has been prolonged by writers such as Nietzsche, Hegel, Marx, Weber, Durkheim, Arendt, Adorno, Habermas, Honneth, etc., the second pertains to a tradition of moral or political philosophy to which the names of Hobbes, Locke, Hume, Kant, Rawls, Dworkin, etc., are associated. The case of A. Sen is especially interesting in the context of this study because his writings can be said to contribute to one and the other traditions. Contrary to the current inclination to reduce all normative inquiries about social arrangements to the ethical point of view, Honneth (2006) maintains that, as the authors in the first tradition have shown, a society may fail also in a more general sense, in its capacity to install and preserve the conditions allowing its members to have a successful life. Honneth calls 'social pathologies' the social deficiencies that don't result from violations to the commonly accepted principles of justice but from breaches to the conditions of personal self-realization. However, as far as, following Fraser and Honneth himself, one considers social recognition, a acknowledged crucial condition of personal self-realization as a fundamental principle of justice, the difference between the two traditions get blurred, or the overlap widens.

Another aspect of normativity concerns the political consequences of the choices of basic indicators. An index of well-being is also supposed to help defining, operationalizing and assessing actual public policies (Hagerty & al. recommendations 1 and 2). It follows that selected variables must be both legitimate and feasible targets of public action. The normative criterion is the main reason why a SWB indicator alone cannot suffice. It is well-known that people can report a high level of subjective well-being while living in very poor conditions and, conversely, people objectively well-off can experience a low level of subjective well-being. High subjective well-being in poor material conditions can result from what Elster (1982) calls 'adaptive preferences' or more precisely 'adaptive preferences changes', the fact that people are able to adapt to (and even accept) bad living conditions and develop a distorted evaluation of their situation. Poor subjective well-being in objectively good living conditions can also result from a kind of adaptation captured by the concept of 'hedonic treadmill'. On the other hand, as Scanlon argued:

"What are employed in moral argument are generally not notions of well-being that individuals would use to evaluate their own lives, but rather, various moral conceptions of how well-off a person is – that is to say, conceptions that are shaped by one or another idea of what we owe to and can claim from one another. This is most obvious in political philosophy in the various standards that have been proposed as measures of distributive shares for purposes of assessing claims of justice, such as Rawls' primary social goods (...) and Sen's capability sets (...). From an

individual's own perspective, these criteria offer very incomplete measures of how well his or her life is going. One life might be much better than another from an individual's point of view – happier, more successful, and so on – even though the two lives were the same as measured by Rawl's or Sen's criteria. This divergence is due to the fact that these criteria are supposed to measure only those aspects of a life that, according to theories in question, it is the responsibility of basic institutions to provide for."(Scanlon 1998, 110).

This has important consequences for the way we handle the objective versus subjective criteria for assessing well-being. Scanlon's discussion of this issue in his 1975 paper "Preference and Urgency" has been hugely influential (it has notably triggered some adaptations in Rawls's conception of primary social goods) and remains up to date. Subjective criteria are those that rest upon the evaluation by the person herself of her well-being (and, especially of changes in her well-being) based on her tastes and preferences. The attractiveness of subjective criteria comes from the fact that a) they are obviously outcome-oriented and can accommodate differences in needs; b) they give full recognition to individual sovereignty; c) they seem to have a kind of theoretical primacy insofar as individual happiness or satisfaction can be considered the ultimate justification of institutions and policies.

Yet, the criteria of well-being that we actually employ in making moral judgments are objective, in the sense that they are independent of person's tastes and interests so that they can be considered correct even if they conflict with the person's preferences. This doesn't mean, Scanlon adds, that the objective criterion we use is not socially relative. Nor that it will be blind to individual variations in positions, or even to individual interests and preferences. What it will exclude, however, is the *strength* of these preferences.

"What I take to be central to the objectivist position, however, is the idea that, insofar as we are concerned with moral claims that some interests should be favoured at the expense of others in the design of distributive institutions or in the allocation of others rights and prerogatives, it is an objective evaluation of the importance of these interests, and not merely the strength of the subjective preferences they represent, that is relevant" (op.cit., p.658).

Norman Daniel's position is close to Scanlon's one. He also maintains that, "in contexts of distributive justice and other moral contexts, we do in fact appeal to some objective criteria of well-being" (1981: 150) but he adds the following qualifier:

"...the real issue behind Scanlon's insightful discussion is the choice between objective truncated or selective scales of well-being and either objective or subjective full-range or 'satisfaction' scales of well-being". (151-152).

This is also a very important statement. The crucial problem is perhaps not the objective vs. subjective problem but the extension of the evaluation scale: full-range vs. truncated. According to Daniels, even if there existed an intersubjectively acceptable way of measuring and comparing individual well-being conceived as the level of satisfaction of the individual's full range of preferences, it would not be the right scale to use in distributive justice matters. The (truncated) right scale that we should use would be composed only of the *urgent* or *important* preferences.

Scanlon identifies two approaches to the urgency problem: a naturalist and a conventionalist approach. For the naturalist approach, there would be an objective truth about the objective

relative urgency and importance of the different interests. For the conventionalist approach, the ranking of interests would result from a consensus (of the kind Rawls will later call overlapping consensus) on what would appear the best available standard of justification mutually acceptable for people whose preferences diverge. It is the second road that Rawls took with the idea of primary goods.

Our position is that we need both, that is, an overlapping democratic consensus informed by well established objectives facts on well-being, stemming from empirical research.

II. WHAT DO WE KNOW ABOUT WELL-BEING?

That subjective well-being (SWB) cannot provide a sufficient underpinning for a normative, policy-oriented index of well-being, doesn't mean that it has no role to play in well-being assessment. On the contrary: it constitutes one of the two main yardsticks by which it is possible to evaluate the impacts and consequences of social arrangements on individual well-being. Indeed, it is partly thanks to the general acknowledgment (including by economists) of the relevance, robustness and overall validity of the measurement of evaluative (satisfaction) and affective (happiness properly said) well-being practised by psychologists and sociologists that we are now in position to better appreciate the real contribution of income, economic growth, consumption and, in general, monetary factors to our quality of life.

Besides SWB, objective health and life expectancy constitute the second yardstick by which to assess the overall costs and benefits of our social arrangements.

1. ON WHAT DOES SUBJECTIVE WELL BEING DEPEND?

Usually, most of the research on quality of life, happiness and subjective well-being is based on closed-form questionnaires in which respondents don't have the opportunity to choose the domains or sectors on which their quality of life will be assessed. As Walker and Van der Maesen (2003:15) remark: "The simple direct method of asking members of the public what is most important in their lives has been used surprisingly little in this field". Still less used, as far as we know, are collective survey methods such as focus groups where people can express and discuss with peers their conception of the good life, happiness and welfare. This is precisely the method we chose (connected to another method, the Q methodology, cf infra) in order to investigate representations and discourses around well-being.

1.1. A QUALITATIVE METHOD: THE FOCUS GROUPS³

Briefly, a focus group is a group composed of six to twelve people who are gathered in a comfortable and permissive environment, and encouraged by a skilled moderator to express themselves, the way they feel or think about a specific issue. Morgan enumerates four basic uses for focus groups: problem identification, planning, implementation and assessment. In the case of this research, focus groups were used in an explorative way, for what he defines as 'problem identification'. "Focus groups are especially useful for these initial explorations because the groups can often carry on the discussion even when the research team has only a minimal knowledge about the topic" (Morgan 1997, 13). Focus groups are revealing what can be defined as 'PROBA', which stands for Perceptions, Opinions, Beliefs and Attitudes. Through them, the researchers can learn what matters most to the participants, why this is the case and how one could enhance the existing way of doing things.

³ For the full report of the focus groups, see the Working Paper by PRIGNOT, N., SPILLEMAECKERS, S. and VAN OOTEGEM, L. (2009): "Focus groups as a tool for the analysis of well-being"

Moreover, focus groups are interesting because they provide a broader view than that of the individual, as the process invites the participants to reformulate their viewpoint, engage in debate, and explore shared understandings (Barbour 2007: 113). A focus group does not only provide insights to researchers, but also to participants, and its aim is not to reach a consensus, but to get a wide diversity of opinions (Puchka 2005).

For all those reasons, the method appeared to fit well our objectives:

- to explore spontaneous discourses on well-being: what does make a life valuable, what does well-being mean, what are its main dimensions, how do they relate to each other, etc.
- to elicit citizen deliberation on the way to assess well-being
- to constitute the 'concourse' (the universe of discourses about wellbeing) from which a collection of statements and proposals would be later selected in order to build a *Q* sample (cf infra).

1.1.1. METHODOLOGY

In order to prepare the framework of the focus groups, the preliminary results of the literature review, together with the study of existing indexes and indicators of well-being⁴, were used as a basis for constituting a list of what could be considered as different dimensions of well-being: work, physical environment, physical and mental health, social environment, leisure-culture, education-information, income-wealth, and political environment.

It was decided to structure the focus groups' sessions into two distinct parts. The first one was meant to address general and spontaneous conceptions of well-being and its components, and to interrogate the relative importance given by the participants to the eight dimensions, by means of a 'ranking exercise'. The second part was designed to focus more specifically on one of those eight dimensions. Therefore, it appeared interesting to organize eight focus groups, four in Flemish and four in French, each one investigating a different dimension, and, doing so, giving the opportunity to go further and deeper, through questions about needs, quality of life, functionings and capabilities.

Since the issue to be discussed during the sessions concerned every single human being, we didn't need the participants to hold specific characteristics. A structured sample of the population was selected according to a factorial design corresponding to two Belgian linguistic communities (Flemish and French speaking), two genders, three age groups ([18-36], [37-53], [57, 79]) and three education levels (low = maximum inferior secondary school degree; Middle = superior secondary school degree, and High = higher education degree). The aim here was not to build a statistically representative sample, but, rather (in the perspective of constitution of the future *Q*-sample, cf.infra), to give us a chance of gathering the principal different conceptions of, and languages on, i.e. the principal discourses on well-being. Statistical significance with respect to differences in people themselves would be taken care of later in the project, in the coming survey. An address list was bought from a

⁴ The indicators looked upon were these of the Eurobarometer, the Human Development Index (HDI), the Genuine Progress Indicator (GPI), the Index of Economic Well-being (IEW), the Index of Social Health (ISH), the Measure of Domestic Progress (MDP), the Measure of Economic Welfare (MEW), the Pact van Vilvoorde, the Panel Study of Belgian Households, the UN Human Development Report and the WHO world's Health survey. Furthermore the lists made by Warr (1999) and of course Nussbaum (2001) were consulted. Information was also used from Veenhoven (2000) and Boarini R (2006).

market research bureau with the request of having a balanced sample regarding to language, gender, age and education categories, for each focus group session. It turned out to be very difficult to compose eight groups of participants with the required profiles for the specified dates and places.

Finally, the participants to the focus groups (on average 8 by focus group session) were distributed as follows:

Linguistic community	French speaking	34	50%
	Flemish speaking	34	50%
Gender	Male	33	48%
	Female	35	52%
Age group	[18-36]	16	23%
	[37-53]	24	36%
	[54-79]	28	41%
Educational level	Low	12	18%
	Middle	23	34%
	High	33	48%

Table 1: Sample of focus groups' participants

Due to practical reasons – our invitations were equilibrated but we couldn't foresee who would be really present at the focus group –, the sample turned out to be less balanced than expected. On average, more elderly participants were present and less young people. Also significantly more high-educated persons showed up: less than 20% had not achieved higher secondary school. Nonetheless, all in all, each session gathered a group of people varied enough to make interesting discussions, confrontations and debates arise.

1.1.2. THE FOCUS GROUPS' SESSSIONS

Each focus group session was roughly structured as follows. First, a general discussion (10 minutes) was held on synonyms and interpretations of well-being in general. Then, there was a discussion (20 minutes) on all aspects of life having an influence on the well-being of the participants and their entourage. All aspects were written on a white board and were classified in function of the ex-ante list of the eight dimensions. At the end, the animator asked each participant to classify those dimensions in function of their relative importance for their own well-being. Afterwards, there was a discussion (10 minutes) on the reasons for these personal classifications.

As an introduction to the second part, the dimension chosen for each particular group was explained. The participants were asked to discuss, for this specific dimension, the aspects they found most important with respect to the influence on their well-being. Each participant was asked to write the three most important sub-dimensions on a post-it. These were assembled on a wall and the most prominently mentioned sub-dimensions were discussed in detail (for about one hour). The animator explained in simple language what would be asked for each sub-dimension: needs on the personal level, the achievements (functionings) and the possibilities (capabilities). Participants were asked to describe their own situation as well as a realistic ideal situation. They had to indicate possible improvements, if it would be feasible to introduce them, and who could help to realize them.

1.1.3. ANALYSIS

The transcriptions of the focus groups were classified using a free qualitative analysis software⁵. This program allowed classifying the remarks of the participants in different categories. In a first round, all remarks were categorised following the ex-ante list used for the second part of the focus groups. After this first lecture, a second classification was made ex-post. A list of categories was made of subjects that were mentioned by the participants of the focus groups as related to their well-being. The list could be divided in four existential categories" (Having- Being- Doing- Interacting) borrowed from Max Neef' theory of needs. The ex-ante listing is composed of the eight following dimensions: Health, Education, Work, Social, Physical and Political Environments, Leisure and finally Wealth. The expost listing is composed of 4 groups: Having, Being, Doing and Interacting.

The category 'Having' gathered discussions about the external possessions and how they influence well-being. Under 'Having' were classified sentences about: basic needs, time, autonomy, security, materialism, freedom, values, influence and opportunities. The category 'Being' concerned the internal characteristics of humans, i.e. the statements that claim that 'being well' depends on the way one is. Under 'Being' were classified sentences about: State of mind (faith, optimism, confidence,...), Pleasure and Satisfaction. The category 'Doing' is about the way humans can actively influence their well-being. Under 'Doing' were classified sentences about: responsibility, management, choices, projects, planning, new directions, adventure, motivation and goals. The category 'Interacting' is about the interactions between humans and between humans and nature, objects, and so on. Under 'Interacting' were classified sentences about: autonomy, social belonging, respect, trust, love, family, nature and solidarity.

1.1.4. SOME RESULTS

A first surprise, concerning the first part of the sessions, was the difference between the interpretations given to the concept of 'well-being', following it had been translated in Flemish ('welzijn') or in French ('bien-être'). Indeed, 'welzijn' seemed to be spontaneously related to material aspects, while 'bien-être' was rather used to describe feelings arising from 'moments of happiness'. Nevertheless, independently from the vocabulary used, ('welzijn' in Flemish, 'bien-être' in French or synonyms in both languages, as 'quality of life', 'happiness', 'good life',...), the discourses of the participants, be them Flemish or French speaking, finally covered a whole range of ideas, concepts, levels. They spoke about fulfilment of material needs (food, housing, basic income level, ...) as well as about feelings and their temporary character.

Concerning the dimensions, it is interesting to notice that all the eight dimensions we had chosen to explore, on beforehand, as constitutive of well-being, appeared quite spontaneously in the participants' discourses: If they didn't appear as such in each focus group, all in all, each of them was spontaneously mentioned at least once, in during one session. In general, the majority of the participants agreed on their importance. This was particularly underlined during the ranking exercise, where most of the participants were complaining about the difficulty of the task. Nevertheless, all of them managed to complete their ranking, as summarized in the following table:

⁵ Weft QDA: http://www.pressure.to/qda

RANK	DIMENSION	MEAN RANK	P-VALUE
1	Health	2.15	
2	Social Environment	3.54	.000
3	Wealth	3.65	.756
4	Work	3.93	.483
5	Physical Environment	4.70	.026
6	Leisure	5.40	.076
7	Education	5.68	.435
8	Political Life	6.94	.000

Table 2: Wilcoxon Signed Ranks Test on focus groups' ranking of dimensions

To investigate if there was a 'real' difference in the ranking of different dimensions of well-being, the Wilcoxon Signed Ranks Test was applied. This test is used to see if there is a difference between variables within a sample. The hypothesis (H0) is that there is no statistically significant difference between two variables, the variables here being the mean rank (importance) of the dimensions of well-being. The results show that the mean rank for 'health' and 'social environment' differ significantly. The p-value between them is .000. The H0 can thus be rejected (at the 1% significance level). The dimension 'health' gets a statistically significant higher valuation than the 'social environment'. There is no statistically significant difference (at 5% level) between the ranking (the importance) of the dimensions 'social environment', 'work' and 'wealth', which means that those three dimensions were considered as inter-related by the participants. All three were seen as conditions for the material side of well-being. Without a good health, it is impossible to have a good job and, in consequence, to earn enough money. They all were mentioned spontaneously in every focus group. Moreover, 'health' and 'work' were strongly related to social relationships. Next came 'physical environment' and 'leisure'. 'Education' was second last, and 'political life' was overall seen as the less important.

Classification was done in function of the present situation of the persons. If there were unfulfilled needs, or problems with one of the dimensions, this dimension came out as more important. Participants with money problems talked more about money, and were more inclined to put wealth on the first place. The same happened with health, although people without health problems also considered it as the main issue. The clearest example of the fact that ranking was related to daily life problems was the low position of the political dimension on the list. It was rarely mentioned spontaneously during the focus groups. When asked for, everybody agreed it was a basic condition for well-being, but as we live in a democratic society with a relative freedom of speech it is taken for granted. Many participants thought that political environment would be considered as more important in countries that do not guarantee fundamental rights, as freedom of speech. The same happened for education, as most of the participants said they considered that the educational system in Belgium was very satisfying.

Adaptation, comparison and personality were the three aspects that appeared to have the most influence on the way people formulated their aspirations in life and their goal setting in function of the realization of well-being. Based on these aspirations, a list of relevant capabilities can be elaborated, in the sense of what people are able to do and to be. The most difficult part during the

focus groups was to make participants answer questions concerning their capabilities. Capabilities were closely related to responsibilities, as well of the state, the environment and the individual. As people were asked to give examples from their life and of their environment, we could also gather some material about the 'achieved functionings'. These have to do with the choices people make in life in function of their capabilities. Choices reflect which different dimensions and categories are considered as important, but also why people live the way of life they are living. Based on the achieved functionings, the valuation of ones' life will be done. Achieved functionings can be compared with the primary aspirations. Here again comparison, adaptation and choice play an important role.

1.2. THE RELATIONS BETWEEN PERSONNAL CHARACTERISTICS AND SUBJECTIVE WELL-BEING IN A NUTSHELL

To get a short but as comprehensive as possible overview of what econometrical research can teach us on the relations between subjective well-being and objective, personal or social covariates, we will follow the conclusions of the remarkable survey realised by Dolan, Peasgood and White (2008). However, as a kind of commentary we will add to them some purely qualitative comments (in boxes) gathered during the different focus groups we organized.

INCOME

There is evidence of diminishing marginal returns to income i.e. the relationship with SWB gets weaker as income rises. Some of this positive association is probably due to reverse causation and some to unobserved characteristics such as personality factors. Relative income is shown to have significant negative relationship with SWB, meaning that additional income may not increase well-being if those in the relevant comparison group also gain a similar increase. There is some indication that individuals adapt to changes in income levels and that subjective assessments of financial position are important to SWB. As Ferrer-i-Carbonell and Frijters (2004: 656) note in conclusions of their analysis of the relation between income and SWB: "Finally, a note on the unimportance of income for happiness. The coefficient of 0.11 of log-income in the OLS individual fixed-effect model, implies that an individual would need an income increase of over 800000% to achieve an increase of one for general satisfaction on a (0,10) scale. This in itself raises the question of why individuals expend so much effort on obtaining more income to the extent that most economists since Jevons (1871) have taken this as the main human motivation. »

The question of wealth, be it under the form of income or material possessions, was spontaneously mentioned in every focus group. In average, it was ranked at the third position (out of 8), meaning it was considered by most of the participants as an element of great importance, having a strong impact on their well-being. However, looking closer at the ranking exercise, through the justifications given by the participants concerning their sortings, and through a statistical test (the Wilcoxon Signed Ranks Test), 'wealth' appeared as being closely related to the 'work' and 'health' dimensions, as the three basic conditions for well-being. Actually, the participants said it was very difficult to choose which one of those three items was more important than the others. Anyway, money was said to be, of course, in our societies, the only mean to cover the basic needs. This reflection about 'basic needs' was prolonged by the idea (and the regret) that the contemporary

'consumer society' creates needs and expectations and thus sometimes induces frustration, even with regard to a honourable income.

During the session especially dedicated to the dimension 'wealth', an important part of the discussion was related to trade-offs. Indeed, if some people seemed to agree with the motto 'work more to earn more', for example, they still put forward the losses this would imply: loss of time (though considered as very important for well-being), more difficulties to keep a right balance between professional life and personal life, less opportunity to relax through leisure, ... Others affirmed clearly they had already decided (or would be ready to do so) to earn less money in order to gain in another domain (time spent with children, leisure time, security of the job, less stress at work, more interest in the work, ...)

Finally, a lot of participants gave examples of adaptation to a (involuntary) loss of income, each time emphasizing the idea that this loss did never mean a decrease in well-being, as it was compensated by a gain in another domain.

AGE AND GENDER

Age has a U-shaped relationship with SWB, with SWB lowest around 32-50. Women tend to score lower on mental health measures than men, but there is a wide degree of within-gender variance.

The questions of the age and the gender didn't clearly appear, in the words of the focus groups participants, as an element that was directly influencing the 'level' of well-being in itself. However, the discussions gave us elements that invite us to make some hypothesis about this U-shaped relationship between age and SWB.

First, the period between 32 and 50 years surely corresponds to the most difficult period of life as far as the balance between the professional life and the private life is concerned. This is especially true when one has children, which can give an element of explanation for the lower score of women. It is also the period during which one is more prone to endure stress at work, and on the way to work. Yet, stressful tasks at work and stressful commuting were seen by the participants as very harmful to well-being. Another interesting element brought by the discussions is the idea that it is easier for older people to find their way through all the choices offered by society. According to the participants, young people have a lot of opportunities, but it is hard for them to choose. They are almost drawn, and feel frustrated because they do not have the time to do all the things they would like to and can do.

EDUCATION

The relationship between education and SWB is indeterminate. Note that education is strongly related to income and health, particularly psychological health.

Education was only exceptionally seen as a 'top three item' in the ranking exercise, but it was frequently mentioned in a spontaneous way during the focus groups sessions. Most of the time, participants underlined the fact that it had become necessary to study and to have an adequate diploma to get on in life in our present society. The importance of instilling values and rules in children so that they were able to live and interact in society was also seen as something fundamental. Also, some participants expressed the opinion that education was nowadays

necessary the whole life long and that the State should organise or provide for this permanent education.

EMPLOYMENT

Unemployment is highly detrimental to SWB, although the effect is moderated by living close to others who are unemployed. Unemployed show around 5-15% lower scores than employed. The possibility of reverse causation have been ruled out by several studies showing that before losing their job unemployed where no less satisfied than others.

A lot of participants described the loss of a job as a real harm for their well-being, for several reasons: decreased self-confidence, feeling 'useless', loss of social relationships, negative impact on mental health (sometimes depression), inactivity (cf. infra)... The positive aspects of living close to other unemployed people was nicely illustrated by the story of one of the participants who, after having endured a 'burn out' and thus left his job, had been obliged to leave his neighbourhood and to move to a social housing, where he found happiness through social support, solidarity and activities with his neighbours.

ACTIVITY

The evidence suggests that more activity, be it formal (e.g. paid work), informal (e.g. some forms of volunteering), social (e.g. church attendance) or physical (e.g. taking walks) is generally associated with higher SWB.

Of course, 'being active' was often mentioned in the focus groups as something highly positive for well-being, be it by feeling useful through volunteering, by practising sport activities, by creating or taking part in collective activities in the neighbourhood, by learning, going out with family and friends, or simply through the work (when it was not too stressful or, on the contrary, not challenging enough).

What is interesting to note is that the notion of 'being active', i.e. 'doing' in general, was often related to the notion of one's 'responsibility' towards one's own well-being, or in other words, to the notion of control of one's life. Participants often repeated that only oneself could solve one's problems or change un-satisfying situations. When participants were asked if they were satisfied with their current situation, and, if not, what could be done to change it, they often answered in terms of personal responsibility: if something is wrong with one's situation, one has to adapt to it (possibly with the support of family and friends), and doesn't seem to think spontaneously about (public) instances that could help. A situation, even if not satisfying, is often seen as a choice, that is already a compromise between different elements.

HEALTH

There is a strong relationship between SWB and both physical and psychological health, the relation being stronger with the latter but this is not surprising because of the close correspondence between SWB and psychological health.

Health was ranked by the focus groups' participants almost unanimously in the first place, i.e. as the dimension of life having the greatest impact on well-being. Moreover, mental health was very often spontaneously mentioned as a synonym to 'well-being'.

ATTITUDES AND BELIEFS

The perceptions of our circumstances matter to SWB, the degree of trust in others seems to be positively correlated with SWB but the evidence is very limited. Belief in god is positively associated with well-being.

The question of the 'attitude' towards one's situation and its circumstances appeared very frequently in the focus groups discussions: being well, for most of the participants, was strongly dependant from a personal attitude, personal dispositions, i.e. a frame of mind. It was sometimes expressed as radically as "if I'm not happy, it's my own fault. Only myself can be taken responsible for my (absence) of well-being", but, generally, more 'softly' through the idea that one should be optimistic, open, able to be satisfied with 'simple things'.

The dimension of 'beliefs' appeared several times, in the words of the participants, as a fundamental dimension. It was often raised under the idea of the importance of 'having a personal philosophy of life', providing a 'course of actions', objectives and ways to reach them. It is closely linked to the idea (see number 4) of being active, of 'walking' towards one's happiness.

SOCIAL RELATIONS

Seeing one's family and friends and having an intimate relationship are associated with higher SWB and the breakdown of that relationship is strongly detrimental to well-being.

The item 'Social relations' was on average ranked at the second place, just after wealth. It was clearly seen as the most important 'immaterial' dimension of well-being. It was always mentioned in an elaborated way, and often closely related to the other dimensions. The relationships to others were omnipresent when talking about well-being, be it through family support, relationships at work, in the neighbourhood, through leisure activities ...

WIDER ENVIRONMENT

There is very little robust evidence on the relationship between well-being and the economic, social, political and natural environment we live in (inflation, unemployment rates, income inequality, crime etc.) largely because it is very difficult to control for the range of other variables that will affect these relationships.

This appears once again when noticing that dimensions as 'political life' and 'physical environment' where ranked amongst the lowest positions (in average respectively 8 and 5), although some of their subdimensions were evoked spontaneously by the participants. People were more inclined to speak about elements concretely related to their personal daily life, and, when the discussion was coming to elements like security, inflation, criminality, ..., it often got stuck. As for the environmental dimension, only a few participants evoked it spontaneously. It was often seen as a long term issue, having only an indirect impact on well-being.

To these conclusions, one should add two important findings not highlighted in Dolan et al. (2008) survey.

IN GENERAL, PEOPLE SUFFER FROM LOSSES MORE THAN THEY BENEFIT FROM GAINS

Another very important conclusion from explanatory research on happiness and well-being is that, whatever the factor considered, its impact is generally asymmetric. This means that an increase in the provision of a factor acting positively on well-being will bring less additional well-being than an equivalent decrease will harm it. For instance: being separated or widowed harms more than being married benefits; being unemployed is more conducive to ill-being than being employed to well-being, and so on.

This empirical finding is corroborated by experimental research, notably the experiments conducted by Kahneman and Tversky (2000), which provide ample evidence for this 'aversion for loss'. This has important consequences for index building, notably when estimating elasticity of well-being with respect to its covariates by statistical techniques.

FREEDOM IN CONJUNCTION WITH CONTROL MATTERS

Paolo Verme (2008) has undertaken a statistical analysis of all the data on happiness centralized in the World Database of Happiness in search of a universal predictor of happiness. The data analysed (from the European and World Values Survey) cover 84 countries on a period running from 1981 to 2004, amounting to 267.870 observations and over 800 variables covering individual and household characteristics as well as cultural values and norms.

The dependent variable is the answers to the standard question: "All things considered, how satisfied are you with your life as a whole these days?" on a 1 to 10 scale. He first ran simple bivariate OLS (Ordinary Least Squares) regressions with all other variables in the database and ranked in decreasing order according to the value of the R² statistic of the regression. As expected, the variables coming first in the ranking were those expressing components of satisfaction with life as a whole: satisfaction with and importance of family, work, religion, politics, etc., The first 'non proxy' variable came at the 7th position and was the variable which recorded the answers at the following question and that Varme named 'freedom&control'6:

"Please use this scale where 1 means 'none at all' and 10 means 'a great deal' to indicate how much freedom of choice and control you feel you have over the way your life turns out?".

Then Varme selected the best bivariate regressions predictors of happiness and carried out multivariate regressions (ordered logit), first after pooling out all observations, then separately for each country (74 out of 84) that disposed of all the selected variables. Again, freedom and control happened to be the most explicative and significant variables followed by marriage, religion and trusts in institutions. This raises suspicion that the two questions actually evoke the same reality in the mind of the respondents. In order to test this, and that the two variables measure the same thing, Verme conducted the same multivariate regressions than before but, this time, with 'freedom&control' as dependent variable and happiness as one of the independent ones. The

_

⁶ Veenhoven (2000a) had already highlighted the importance of freedom on happiness but on a smaller sample.

results appear to be quite different: 10 of the 19 explanatory variables change sign and 4 amongst the others turned from significant to non significant.

Verne thinks that the impact of freedom depends on the other part of the variable 'freedom&control', i.e. control: "Our hypothesis is that control acts as a regulator of the intrinsic value that people attribute to freedom of choice. The more control we think we have over choice, the more freedom of choice we can handle and the more satisfaction we will derive from freedom of choice." (p.8). Psychologists have remarked that people differ with respect to the perception of the control they have on their own existence. One category, called the 'internals' attribute what happens to them as the outcome of their decisions, capacities and actions, whilst another category, the 'externals' attribute it to fate, destiny, hazard or others. Of course, there are intermediary positions between pure externals and pure internals. Anyway, Verne supposes that 'internals', i.e. those who think they have strong control over the outcome of their choices, should give more importance to freedom and benefit more from it than the 'externals' who believe their life is driven by factors outside their reach. It would follow that individuals will value freedom differently but also that for everyone there must be an optimum of freedom taken considering the level of their perceived 'locus of control'. To conclude: "...the value that people attribute to freedom of choice cannot be assessed simply by looking at freedom of choice but must be assessed by looking at freedom of choice in conjunction with control. If control is not measured we cannot really assess how freedom turns into happiness." This would explain why 'freedom&control' scores as high in explaining happiness even if, in fact, one cannot be sure it captures really the two dimensions.

The importance of Verne's contribution – if confirmed and replicated – makes no doubt once acknowledged the similarity of its notion of 'freedom&control' with Sen's concept of capability, to which we will come later on.

2. ON WHAT DO HEALTH AND LONGEVITY DEPEND?

That health and longevity depend in a large part from social factors is illustrated by two major problems: the social gradient in disease, and the striking differences in life expectancy between the countries of western Europe and those of central and eastern Europe that have emerged over the last 30 years. In what follows, we will concentrate on the first problem as illustrative enough of the importance of the social environment for well-being.

2.1. SOCIAL STATUS MATTERS

Longitudinal epidemiological studies have highlighted a very upsetting phenomenon: the social gradient of health. The most convincing illustrations of this social gradient are given by the two 'Whitehall' studies, the longitudinal epidemiological surveys led by Marmot (Marmot et al. 1997, Marmot 2005) on British civil servants. They demonstrated that amongst that relatively privileged social category, both mortality and morbidity varied according to the rank in the organisational hierarchy. In other words, each grade had higher levels of morbidity and mortality than the one above it and this was true for a wide range of causes of death, both those that might be influenced by medical care and those that may not.

The Whitehall studies showed, for example, that at ages forty to sixty-four, the men at the bottom of the rank hierarchy had four times the risk of death of the administrators at the top of the hierarchy and that differences in the dying risks existed all along the social ladder.

Data from other large scale surveys such as the Wisconsin Longitudinal Study (WLS) and the National Survey of Families and Households (NSFH) in USA confirm the Whitehall findings hold for different and more diversified populations.

Of course, the possibility that health influences social position or that a common latent variable, such as family background or intelligence, influences both health and position have been seriously tested. The figures from the three surveys referred to above allow rejecting these hypotheses:

"Whitehall II show that taking into account the social background of parents does not change the relationship between grade of employment and health (...). The WLS shows that taking into account parents' education and whether the respondent lived in an intact family during childhood (...), and, additionally, IQ measured in high school (...), reduces the relation between occupational status and health only to a small extent. In the NSFH, adding to age and race (...), parents' education, and whether the family was intact when the respondent was 15 (...), did not eliminate the relation between social position and health." (Marmot et al., 1997: 905).

This suggests that health is related to the social position as such and not to the characteristics of the individuals who end up in the different social strata. The question then is to understand what in social position influences health and how it exerts its influence. The first hypothesis that comes to mind is: behaviour, such as smoking and drinking. Indeed, the surveys show that unhealthy behaviours are more prevalent in lower grades than in higher. There is, for instance, a social gradient in smoking. However, when controlling for behaviour, the relationship between status and health weaken but do not vanish. As Marmot puts it:

"....whatever the level of risk factor, being of low grade is worse for your health than being of higher grade. A smoker who is low employment grade has a higher risk of heart disease than a smoker who is higher grade. A non-smoker who is lower grade has a higher risk of heart disease than a non-smoker who is higher grade". (Marmot 2005, 44). The same holds for lung cancers. On the other hand, even if it doesn't explain all differences in health, the social gradient in unhealthy behaviours itself asks for explanations.

Differential access to medical care can also account for a part of the social gradient of mortality (survival chances once ill) but if it cannot account for differences in morbidity, the social gradient in incidence and prevalence of most diseases.

Having discarded all possible other explanations (genetic and familial background, differences in access to health care, unhealthy behaviours), Wilkinson (2006) concludes that the only remaining factors that can account for the social gradient in health are psycho-sociological ones, namely: social status, social affiliation and stress in early life. That doesn't mean that access to and quality of health care is negligible. Health care of course is important but it comes later in the causal chain, to detect as early as possible and/or try to cure diseases and illnesses already present whose onset depends on psycho-sociological factors.

What is important in social status for health? Certainly material conditions and lifestyles matter, but maybe more important, at least beyond a certain threshold of material well-being, are autonomy, control over one's own life and self-esteem. This is why unemployment can be so harmful: it is not only that your material living conditions deteriorate but more importantly that your social status tumble, that you lose control over your own life and the conditions of self-esteem, what Rawls calls the social basis of self-respect and psychologists positive experience of self.

"Positive experience of self while closely linked to well-being, is contingent on a social environment that provides opportunities of belonging, acting or contributing and of receiving positive feedbacks. Conversely, a social structure that excludes individuals from belonging, acting, or contributing, and that prevents them from receiving favourable feedback, diminishes or even destroys positive experience of self." (Marmot, Siegrist and Theorell 2006, 101).

2.2. TWO IMPORTANT BALANCES: DEMANDS/CONTROL AND EFFORTS/REWARDS

Having a job is certainly better than being unemployed but, according to the social status of your job, your autonomy and control over your own life can vary dramatically. More precisely, the rank of your work position in the organisational hierarchy commands two balances that are crucial for well-being and health: the balance between demands and control and the balance between efforts and rewards.

Indeed, Karasek (1979) has conjectured that an important part of work stress and its subsequent physical illness (particularly coronary heart disease) is the outcome of a high level of psychological demand combined with a low level of decision latitude (authority and skill utilization). Since then, many studies confirmed Karasek's demand-control model. The way imbalance between demands and control influences health and well-being can be illustrated by the figure 1 below which uses the more general 'stress-and-coping' language and variables. In this language, demands are characterised as stressors and controls as elements of resistance or vulnerability.

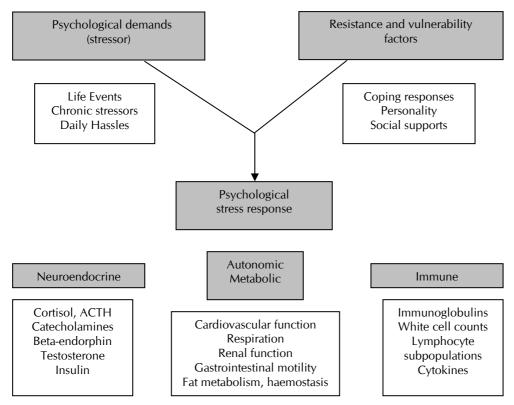


Fig. 2.11 The psychobiological stress response. Resistance and vulnerability factors influence the response to psychosocial stressors. the major hormonal, metabolic, and immune elements of the response are shown (From Steptoe 1998.)

Figure 1. The demand-control problem as a stress-coping example. Source: Brunner and Marmot (2006)

Another kind of imbalance has been showed to influence work stress and coronary heart disease: the imbalance between effort and reward. It builds on the notion of social reciprocity which is a fundamental principle in social relations. Failed reciprocity elicits strong negative emotions and stress responses because it violates a fundamental norm of social behaviour.

"The model of effort-reward imbalance is based on the assumption that efforts spent at work are not reciprocated by equitable rewards under specific conditions. These rewards include money, esteem, and careers opportunities, including job-security." (Marmot, Siegrist and Theorell 2006:103).

Clearly high demands-low control and high costs-low gains working conditions are more frequent in the lower grades of the organisational and social hierarchies than in the higher ones. It is a corollary of social status. It is difficult resisting the temptation to make a connection between the 'demand-control' model and the importance of 'freedom&control' for SWB.

2.3 ROLES STRESS

One can generalize the demand-control and effort-reward imbalance from working context to other social and institutional contexts such as family life. Furthermore, stress can also result from

tensions between incompatible demands between different social roles. Pearlin (1983, 1989) identifies 5 possible source of stress linked to the accomplishment of social roles.

- *Role overload*: the demands in energy and stamina of the role exceed the individual's capacities. Role overload is most common in professional and homemaker roles. (demand-control imbalance in a specific role)
- *Interpersonal conflicts within role sets*: typical are wife-husband, parent-child, worker-supervisor conflicts.
- *Inter-role conflicts*: incompatible demands of multiple roles, especially demands of work and family roles. (demand-control imbalance between multiple roles)
- *Role captivity*: when one is the unwilling incumbent of a role, e.g. unemployed or housewives and retirees who would prefer outside employment. Role captivity is certainly one the biggest problem of women in many contemporary societies.
- *Role structuring*: adaptation to new roles because of aging or other circumstances.

All these 5 sources of stress have been mentioned during our focus groups. One of the participants mentioned that, for her, all basic conditions were present: she had a good job, a fine relationship and wonderful children. Still she did not feel that much happy in general. This was because she did not find yet equilibrium between the different roles she had to play as a mother, a wife, a friend and a worker. Many complained about the work rhythm and the fact that one had to be more and more efficient. It was said that, in the past, one worked longer hours, but in a less stressful and more human way. Someone complained that it was harder for older people to adapt to changes in the company. Still the evaluation of older people at work seems to follow the same criteria as for younger people, which can induce a lot of insecurity and a feeling of unfair treatment.

Besides role strain, another major source of chronic stress comes from the *environmental conditions of living*: noise, crowding and insecurity in neighbourhood are well identified stressors. Reynolds (1997) demonstrates that industrial employment conditions have significant impacts on the psychological well-being of industrial employees, and Caspi and colleagues (2000) find that children's mental health is worse in neighbourhoods dominated by subsidized housing, low incomes, high unemployment and single parent households than it is in other neighbourhoods. Also, Downey and Van Willingen (2005) show that living near industrial activity is correlated with poorer mental health.

Role strains and environmental stressors are particularly important in a well-being indicators perspective insofar as they cannot be effectively coped with by individuals alone. They are social organisation problems which can be addressed only at a collective level. Here again, stress linked to the living environment have been reported by participants in the focus groups. They mentioned first of all the noise produced by the cars in their neighbourhood. The increasing number of cars and the intense traffic around their habitation is seen as a major source of trouble for their well-being. One person living in Brussels mentioned the fact that the streets were dirtier, that trash was more and more present in the streets. Other respondents reacted by saying that some

ameliorations were seen in the process of recycling and on the speed of intervention of the public forces in case of pollution or trash problems.

Figure 2 gives a synthetic image of the impact of 'social arrangements' (beside genetic ones) on well-being as health and life expectancy.

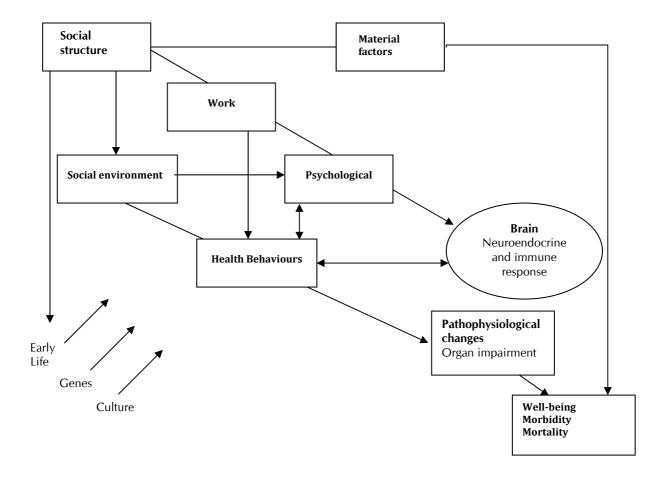


Figure 2. Social determinants of health. Source: Brunner and Marmot (2006).

III. PUTTING IT ALL TOGETHER?

What conceptual framework or theory can best account for these (and others not mentioned here) 'stylised facts' on SWB and objective well-being as health and longevity?

Roughly, we can distinguish 5 frameworks or theories of well-being and quality-of-life:

- Well-being and happiness as utility maximization. This is the "welfarist" conception championed mostly by welfare economists and utilitarian philosophers.
- Well-being and happiness as adaptation (fitness) to the social environment. This is a biologically based, evolutionary perspective advocated mainly by anthropologists and some sociologists.
- Well-being as full health. This conception of well-being lies at the heart of the sociomedical (Pearlin, etc.), socio-psychological (Aldwin) and socio-epidemiological (Marmot, Wilkinson) discourses.
- Well-being as needs-satisfaction. This theory has been developed mainly by psychologists in the Murray and Maslow tradition and underpins the currently burgeoning Self-Determination and Psychological Well-Being Theories. It is also very influential in the sustainable development community, thanks to Max-Neef's theory of human development.
- Well-being as real freedom to live the life one values: the capability approach (CA) developed by A. Sen, M. Nussbaum and many others, notably through the Human Development and Capability Association.

Note that we don't consider purely descriptive accounts of subjective well-being or happiness as 'theories' of well-being, As such, the description of SWB conceived as affective and/or as cognitive mental states makes no assumptions on the causes of these mental states. When explanations are looked for, they resort to one or a mix of the theories referred to above, with a preference for the needs-satisfaction model.

Are there really significant differences between all these approaches? We maintain there is at least one very significant discrepancy between the needs-satisfaction, full health or adaptation theories taken together and the two other approaches. Indeed, the former insist on the *homogeneity* of human nature as shaped by the universal mechanisms of bio-cultural evolution and driven by universal needs (some of them we share with higher animals) while the latter emphasize the irreducible *diversity* and *heterogeneity* of talents, tastes, preferences of individuals. Admittedly, needs-satisfaction theories are aware of the differences across cultures, societies and eras in the way human needs are articulated and fulfilled (what is called 'satisfiers' by scholars like Max-Neef and Doyal & Gough). Likewise, when Martha Nussbaum (on opposition with Sen on that respect) enriches capability theory with a list of basic capabilities, she more or less acknowledges the universality of human nature and dignity. However, the distinction remains legitimate because they differ on their fundamental assumption.

For the sake of assessing well-being in a public policy relevant way, however, only a kind of hybrid position is workable and legitimate. Acknowledging only the unity of human nature would lead to paternalism and a kind of technocratic totalitarianism, but denying the universal character

of human needs and aspirations may be conducive to sheer relativism or pure libertarianism. The possible candidates are either the needs-satisfaction theory claiming a deep concern for liberty and the articulation of individual differences, either as Alkire argues⁷, a capability-functioning approach sensitive to basic functionings or needs.

1. THE FUNCTIONINGS AND CAPABILITIES APPROACH

The capabilities approach works at two levels: the level of observed outcomes (achieved functionings) and the level of opportunities (capabilities). What an individual is really doing or being is called his or her achieved functionings. All possible functionings an individual can achieve are called his or her capabilities, representing the positive real freedom of an individual. So capabilities are opportunities or 'potential functionings'. Human functioning requires commodities and services which have several characteristics that are necessary to achieve a specific functioning. Characteristics are the various desirable properties a commodity has, e.g. a bicycle provides the characteristics of transportation, of enjoying a ride, of muscular training... However, these characteristics of commodities do not tell us anything about what a person is able to do with these characteristics. Characteristics are attributes of a commodity and have nothing to do with the individual owning them. For someone with a physical handicap, a bicycle is of no use. The fact that a disabled person possesses a bicycle does not give us information about his functioning (possibilities). If we want to assess individual well-being, it is essential to take these personal attributes into account. So we have to look at the achieved functionings of the individual, that is what the individual succeeds in being or doing with the commodities at his or her disposal. The concept of functionings takes into account individual characteristics of the person. Being mobile using a bicycle will depend on individual characteristics: the place where he lives or the individual's physical ability (and other personal individual characteristics),... An individual's real functionings are his or her achievements. Any of these achievements reflect part of the 'state of well-being' of the individual. It says something about what the individual manages to do or to be.

Alongside the act of using a commodity to do or be something (i.e. the functioning), there is the valuation of this activity, of this doing or being. Sen emphasizes that this valuation should not be the utility or the pleasure the individual is experiencing. Utility only tells us how 'happy' the individual is in his or her life, not how 'good' his or her way of life is. Goodness of a situation is something different than the pleasure experienced in this situation. Quoting Sen (1985): "Valuing a life and measuring the happiness generated in that life are two different exercises". On the other hand, when evaluating individual well-being, it is important to know whether the individual experiences pleasure or happiness in his life. This means that the concrete functioning 'being happy or satisfied with your life' will be one of the functionings that should be taken into account, together with many other doings or beings.

Valuing a life through the observation and valuation of achieved functionings is not sufficient. The concepts of freedom, choice, opportunities and responsibility are missing. An observed level of functionings can be equivalent for two individuals, but the way in which or the reason why the

⁷ "Clearly, examination of the needs and capability approaches reveals that they are not at loggerheads. We have to go on using both." (Alkire, 2005, p.251)

functionings are achieved can be quite different. On the other hand, achievements can be very different, without differences in the capabilities. A famous example is the comparison between undernourishment because of real deprivation (starving) and undernourishment because of fasting (although being wealthy). Fasting is a private choice for whatever reason, fully reflecting the freedom of the individual. Undernourishment clearly isn't. The example neatly clarifies that the real advantage of a person has to do with both freedom and opportunities. So we have to look (also) for the opportunities and freedoms of the individual. What are/were his or her 'options in life'? The complexity of the issue can be illustrated by the following example. A violin player is suffering from a physical disability. Without a wheelchair he is unable to move. Suppose he would get a wheelchair but prefers to sell it and buy an expensive violin with the money because he does not like riding in a wheelchair. For the evaluation of this individual's wellbeing, using the functioning 'being mobile', it does not matter whether he likes or dislikes riding in his wheelchair. But is it only his ability to move that we want to evaluate? 'Being happy' or even 'freedom of choice' is a second functioning that can be used to evaluate wellbeing. The person is happier (although less mobile) with the violin. And what if the person would not dislike the wheelchair, but is forced to sell it in order to be able to buy the violin?

Figure 3 summarizes the Capability approach.

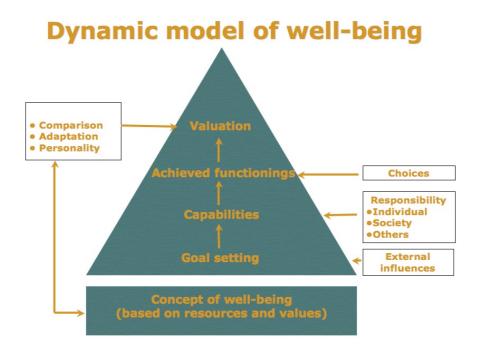


Figure 3. A summary of the capability approach.

As many scholars have experienced, despite its attractiveness, the capability approach is not so easy to put to work and, especially, to operationalize in terms of indicators. Notably, if the distinction between capabilities and functionings is crucial (it can be said to constitute the core of the theory) it is very difficult to translate it at the empirical level and, even at a purely conceptual level, if looked at in a dynamical perspective, the distinction between a capability and a functioning gets blurred. This is what the following discussion tries to highlight.

2. A DYNAMICAL INTERPRETATION OF THE CAPABILITY APPROACH

In order to understand what is meant by a dynamic interpretation of the CA framework, it is useful to start with Sen's own words in exposing it:

"Living may be seen, as consisting of a set of interrelated 'functionings' consisting of beings and doings. A person's achievement in this respect can be seen as the vector of his or her functionings. The relevant functionings can vary from such elementary things as being adequately nourished, being in good health, avoiding escapable morbidity and premature mortality, etc., to more complex achievements such as being happy, having self-respect, taking part in the life of the community, and so on... Closely related to the notion of functionings is that of the 'capability to' function. It represents the various combinations of functionings (beings and doings) that the person can achieve. Capability is, thus, a vector of functionings, reflecting the person's freedom to lead one type of life or another. Just as the so-called 'budge set' in the commodity space represents a person's freedom to buy commodity bundles, the 'capability set' in the functioning space reflects the person's freedom to choose from possible livings... It is easy to see that the well-being of a person must be thoroughly dependent on the nature of his or her being, i.e., on the functionings achieved. Whether a person is well-nourished, in good health, etc., must be intrinsically important for the wellness of that person's being. But, it may be asked, how do capabilities – as opposed to achieved functionings - relate to well-being?" (Sen, "Inequality Reexamined", 1992:39-40).

From this lengthy but important quotation, it appears that, according to Sen:

- There exist elementary and complex functionings.
- Achieved functionings are a subset of capabilities.
- Capabilities contribute also to well-being.

It is necessary to scrutinize the implications of these propositions.

2.1. FUNCTIONINGS AS CAPABILITIES

Consider first the distinction between elementary and complex functionings: it is not clear why 'taking part in the life of the community' should be more complex than 'being in good health'. What is clear, however, is that being in good health is more a condition for taking part in the life of the community than the reverse, even if, on the long run, taking part in the life of the community might help preserving good health. So, there is in the distinction between elementary and complex functionings, something that reminds us the distinction between 'basic needs' and 'wants' (or aspirations or higher needs): being adequately nourished, avoiding escapable morbidity, etc., correspond clearly to 'material needs', and the example given for more complex functionings (self-respect, participation...) evokes Maslow's higher needs. Therefore, if one asks for a simple

criterion on which to distinguish between elementary and complex functionings, it could be suggested the following: elementary functionings are more a pre-condition for complex ones than complex ones are conditions for elementary ones. This means that the distinction between elementary and more complex functionings overlaps somewhat the distinction between functionings and capability.

This has also to do with the difference between direct and indirect valuation. In his short 1997 paper, Sen (p.1959) remarks that:

"Given her personal characteristics, social background, economic circumstances, etc., a person has the ability to do (or be) certain things that she has reason to value. The reason for valuation can be *direct* (the functioning involved may directly enrich her life, such as being well-nourished or being healthy), or *indirect* (the functioning involved may contribute to further production, or command a price in the market). The human capital perspective can – in principle – be defined very broadly to cover both types of valuation, but it is typically defined – by convention – primarily in terms of indirect value: human qualities that employed as 'capital' in production in the way physical capital is. In this sense, the narrower view of human capital approach fits into the more inclusive perspective of human capability which can cover both direct and indirect consequences of human abilities."

Sen argues here that:

- Human capital if interpreted as covering direct as well as indirect valuation is the same as (personal) capability. Otherwise stated, the conventional definition of human capital is: functionings valued indirectly as capabilities.
- So, functionings, when indirectly valued, amount to capabilities. In the excerpt above, Sen seems to consider only market or more generally economic capabilities but we think there is no reason to limit the argument to 'economically productive' only capabilities. It seems to us that many (all?) achieved 'elementary' functionings can be considered as capabilities for 'more complex' functionings. For instance, 'being adequately nourished' once achieved can be seen as a capability for whatever being or doing that is physically or intellectually demanding because it is necessary condition for it, being 'taught' is a capability for 'being a scientist', etc. On the other hand, what Sen holds true for the indirect value of functionings, as human capital can probably be extended to other forms of capital (economic and social) and thus to other kinds of functionings: having a sufficient income is a capability for saving and therefore acquiring wealth; being wealthy is a capability for stopping working; having friends is a capability for meeting new people and extending one's network of contacts, etc.

In other words, capabilities (at least some of them, more precisely 'personal' capabilities) are functionings considered from the perspective of future 'more complex' functionings. It would therefore be artificial and misleading to draw too sharp a distinction between achieved functionings and capabilities. On the contrary, it invites us to adopt a dynamical interpretation of the CA framework in which there is no sharp, absolute distinction between functionings and capabilities, where functionings give the capability to reach more complex (more human?) functionings. Therefore, the second proposition 'achieved functionings is a subset of capabilities' can be interpreted in two different ways: in the 'classic' static way as, 'only functionings that

belong to the capability set are reachable', and in a second, more dynamic way, as 'once achieved, a functioning becomes a capability for further, more complex functionings'.

Finally, capabilities contribute directly to well-being because freedom to chose is directly, inherently a part of well-being and also because the capability set is an indicator of "how good a deal a person has in society" (Sen, 1992, 40).

We would add a third reason, which relates directly to the problem of individual aspirations: the more a person faces capabilities considered as still unachieved but reachable functionings, the more she can form new attainable goals and the more motivations she has for living.

2.2. CAPABILITIES AND LIFE-CHANCES

Implicit in this discussion of achieved functionings as capabilities, or of the dialectical nature of the relation between achievements and prospects, when achievements correspond to increase in assets which are productive in making higher or other functionings accessible, is the fact that life is a dynamic process and that people conceive of themselves as much in terms of achieved states than in terms of processes, of changes; as much in terms of 'being' as in terms of 'becoming' as Comim (2003) and D'Agate (2005) rightly observes. Man – at least the late, modern, western avatar of it – conceives of his life as a process, as the unfolding of a potential and likes to see himself as the main author or master of his destiny. In sum, he wants to be as far as possible *responsible* of his own achievement and functionings.

It follows from the above considerations that the valuation of achieved functionings is based on three criteria:

- The direct value of the functioning for well-being;
- The indirect value of the functioning as stepping stone (capability) for reaching new, more 'complex' functionings;
- The process by which the functioning has been achieved, that is, as the result of a free, autonomous personal action or as the outcome of the interplay of anonymous forces or, still worst, of the will of others.

So, in our "achievement societies" (McClelland), well-being depends as much on the functionings achieved that on the way they have been achieved and on the existing prospects for more valued functionings. This depends heavily on the interaction between individual and social features.

Personal capabilities are always a mix of inherited and acquired characteristics and achieved functionings depend in varying proportion on the efforts of the persons and on external circumstances. As we indicated here above, sociological and social epidemiological surveys and studies (Wilkinson 2006, Marmot 2005, Marmot & Wilkinson 2006, Blackman 2006) show very clearly that the set of reachable functionings – and therefore the capabilities – including the one of the most fundamental ones, life expectancy, depends dramatically on the social and family background of individuals, that is their human, economical and social inherited capital at birth. However, social institutions such as the schooling and the health care systems play a crucial role

in the development of acquired capabilities. They have the potential for compensating inherited health or socio-cultural handicaps by discriminating positively the least well-off in that respect. They play also an important role in fostering the development (or the inhibition) of 'natural' talents.

All in all:

"The life course may be regarded as combining biological and social elements which interact with each other. Individual biological development takes place within a social context which structures life chances so that advantages and disadvantages tend to cluster cross-sectionally and accumulate longitudinally...Cross-sectionally, advantage or disadvantage in one sphere of life is likely to be accompanied by similar advantage or disadvantage in other spheres....Social organization also structures advantages and disadvantage longitudinally. Advantage or disadvantage in one phase of the life course is likely to have been preceded by, and to be succeeded by, similar advantage or disadvantage in the other phases of life." (Blane 2006: 55).

Furthermore, the possibility for people to convert their individual resources into valuable functionings depends on the state of their societal environment, something like the exchange value of them. For instance, the capability to become a professional musician depends on the receptiveness of society to music, the opportunities it offers to learn music and to make for a living with it, etc. Individuals need social recognition and support for developing and expressing their capabilities, talents and skills.

Considered in that dynamical perspective, the concept of capability shows much similarity with the concept of 'life chances' as introduced by Max Weber and advocated by Dahrendorf some time ago (1979) as the corner stone of a both non-welfarist and non subjective only concept of well-being. Sociologists, says Dahrendorf (1979: 52-53), have been for long looking for a category:

"somewhere between the philosophy of money and the philosophy of happiness, that is the assumption that everything can be measured in dollar terms, and the other assumption that the individual alone knows what has value – in short, a category which expresses human wants and needs, interests and hopes in a way that does not suppress the subjective element but makes it clear that one is seeking more than the personal sensation of happiness, namely socially structured ways of individual life. The category which serves these multiple purposes is that of life chances. Human societies and their history are about life chances, not about the greatest happiness of the greatest number, but about the greatest life chances of the greatest number. Life chances are (in principle) measurable possibilities to realize needs, wants and interests in, or at time, against a given context. They are the substratum of social structures, in which life chances are therefore organized. They are also the motive force of social process, which are therefore about life chances."

For Max Weber, who introduced the concept of life chances in his "Economy and Society", the very concept of "class" referred to shared patterns of life chances:

"'Class position' shall mean the typical chance: 1. Of supply of goods, 2. Of external position in life, 3. Of internal destiny in life, which arises from extent and kind of command power (or its absence) over goods or achieved qualifications and from the given manner of its utility for attaining a wage or an income within a given economic order". ("Economy and Society", cited and

translated by Dahrendorf). Furthermore, Weber distinguished *economic chances* (linked to class position) defined as probabilities of satisfying interests and needs accruing from the position a person holds in the process of production and distribution of scarce goods from *social chances* ("estate chances"), defined as the probabilities of the satisfaction of needs and wants arising from a person's position in networks of social relations. There is in Weber's formulations something close to the contemporary notions of economic and social capitals as determining life chances (of longevity, health, comfort, pleasures, meaningfulness, freedom, affection, success, recognition, etc.)

2.3. LIFE CHANCES IN VEEHOVEN'S FRAMEWORK

After two decades of neglect, the category of 'life chance' has been brought back to live by Veenhoven in a paper published in 2000⁸ in which he proposes a classification of well-being indicators based on two bi-partitions, resulting in a fourfold matrix of classification of four 'qualities of life'.

The first distinction made by Veenhoven is between 'life-chances' and 'life-results'. Life chances are the opportunities, the chances for a good life or the potential for a good life. Life-results are the realisation of the good life itself, or the outcomes of the possibilities. The two are distinct in the sense that the potentiality for a good life may very well not be realized, due to various factors.

The second distinction is between internal qualities and external qualities. The internal qualities refer to the qualities that are inside the individual, when the external qualities are the one in the environment. Of course the two influence each other, as an internal quality could be revealed only under some external conditions.

The combination of these two distinctions gives a fourfold matrix, in which the difference between inner and outer qualities is represented horizontally and the difference between life chances and opportunities is presented vertically.

	OUTER QUALITIES	INNER QUALITIES
LIFE CHANCES	Livability of environment	Life-ability of the person
LIFE RESULTS	Utility of Life	Appreciation of life

Table 3. Life chances/Life results - Outer qualities/ Inner qualities

• *Livability of environment*: This denotes the life chances in regard of the external conditions, i.e. the chances offered by one's environment. Veenhoven argues that 'livability' is a better term than "quality of life" as it is used sometimes by sociologists and ecologists because it refers explicitly to characteristics of the environment only.

 $^{^8}$ Veenhoven R.(2000), *The four qualities of life, ordering concepts and measures of the good life,* in: Journal of Happiness studies 1, pp. 1-39

- *Life-ability of the person*: the capacity of the person to use the resources available to him/her in the environment. This quadrant is thus concerned with the inner capacity of the persons to deal with life or the problems of life. This would correspond to 'personal assets' or 'internal resources'.
- *Utility of Life*: the quality of life assessed in terms of its utility for one's (social as well as physical) environment. the external worth of a life. "It represents the fact that a life must be good for something *more than itself*" and "presumes some higher values". This can also be called 'meaning of life'.
- Appreciation of Life: the quality of life in respect with its outcome judged by their value for one's self, an inner valuation. "That is the quality in the eyes of the beholder". This is subjective well-being properly said, the subjective assessment of one's own life.

Three of Veenhoven's categories appear in figure 4 that illustrates our life-chances/capabilities conception of well-being: 'appreciation of life' corresponds to the 'Aspirations-Valuations' box (with a part of utility of life intervening), 'life-ability of the person' to the 'personal assets' box and 'liveability of the environment' to the 'social opportunities' box, but not to the 'life chances' one because we understand 'life chances' as a matching between personal capabilities and social opportunities.

As figure 4 shows, 'aspirations and valuations' by individuals depend on personal endowments, on social opportunities and on achieved functionings in a dynamical process that can be subsumed under the concept of 'adaptation'. Actually, it points to a very complex mix of cognitive (beliefs and knowledge), motivational (aspirations, dispositions for action) and evaluative (positive or negative) mechanisms.

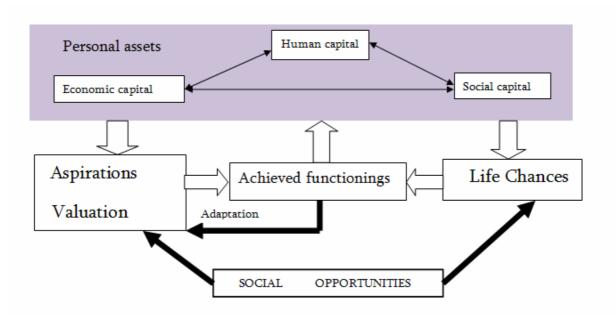


Figure 4. Functionings, life chances and capability in a dynamic perspective.

As already indicated, the concept of life-chances evokes the 'freedom&control' variable analysed by Verme(2008), the freedom component corresponding to the 'social opportunities' and the 'control' component to the personal resources or assets.

The dynamic of the system is ensured by the feedback relation between personal assets, aspirations-valuations and achieved functionings. When things go well, when achieved functionings correspond to the aspirations level, they contribute to increase the level of personal assets and, therefore, the life chances of the person. She may thus develop new aspirations for higher level functionings, and so on⁹. A positive feedback mechanism is at work that enhances well-being. On the contrary, once the person fails to achieve the aspired at functionings, her personal capabilities are threatened (loss of self-confidence, of monetary resources, of reputation or social support, etc.). If the person doesn't adapt her aspiration level, a negative feedback can get triggered, leading to lower and lower well-being. If no external factor helps restoring personal capabilities, adaptation is the only way to reach equilibrium.

As conceptualized here, well-being is a kind of equilibrium between aspirations-valuations, life chances and achieved functionings. Achieved functionings must correspond to aspirations (perceived life chances) but these should not be too high with respect to objective life chances if one wants to avoid systematic frustration. On the other hand, objective life chances must correspond to real capabilities. In other words, people should occupy the economic and social status, roles and positions corresponding to their real capabilities and they should not be discriminated on basis of non capability-relevant criteria. Finally, achieved functionings insofar, as they depend on personal contribution to social cooperation, must correspond to the efforts and talents put at work (balance between efforts and reward and between demands and control).

To summarize:

We understand capabilities as real life chances, the *set of reachable havings (acquirings), beings (becomings), and doings (achievings),* which depend on

- The personal assets of the individual in which we can distinguish (though they are interconnected):
 - o Human capital: health, skills, talents, character, education;
 - o Economical capital: wealth, income, entitlements;
 - o Social capital: social relations and networks.
- The social opportunities available which are:
 - The number and diversity of accessible legitimate un-discriminated social status roles and activities that enable people to develop and express their personality, talents, skills and preferences, etc. The more *legitimate* and *non-discriminated diverse* status, roles and activities considered legitimate in a society, the more opportunities exist for the diversity of talents, skills and preferences to develop and express themselves. This is true, not only in the realm of jobs and professions but also in the realms of family and sexual life (for instance, the possibility to express one's homosexuality), affiliations, etc. By the way, it has been often observed that the absence of these opportunities leads to delinquency (non-legitimate roles, positions and status).
 - o *The number and diversity of accessible* goods and services enabling the development and expression of different skills, talents and preferences in all domains of life (housing, arts, sports, leisure, entertainment, religion and

⁹ It can lead also to what has been called a 'hedonic treadmill'.

spiritualities, etc.). Goods and services in the health and education domains are particularly important here. The more diverse the goods and services available, the more opportunities for different talents, skills and interests to be exercised, practiced or satisfied. The only limit to the proliferation of diverse and accessible goods and services is **sustainability**. However, it is to be stressed that 'goods and services' don't necessarily mean 'commodities' (commercial, marketable goods and services). They can consist of goods and services given for free, bartered, lent, exchanged in LETS, in public goods etc.

However, opportunities don't suffice. In order to take benefit from them (which can involve an element of risk) it is necessary to be confident that a minimal level of fundamental functionings (basic needs) will be guaranteed. So the third element of the societal context for well-being is the existence of effective:

o *Insurance schemes*: insurances systems against the risk of loss of capabilities and their consequences for functionings. They can be more or less encompassing but, at least, they consist in a system of 'safety nets' guaranteeing minimal elementary functionings or basic needs satisfaction. In a CA framework, safety nets should be expressed in terms of functionings (being adequately nourished, sheltered, clothed, educated, healthy, informed, respected....) not of commodities.

In order to foster well-being, social arrangements should:

- Increase the life chances of the population in an equitable way. This amounts to:
 - o Increase the personal capabilities of the population with a special care for those with lower inherited human, social and economic capitals (for instance with positive discrimination policies)
 - o Increase the opportunities in terms of social status, roles and positions for all the population, whatever the inherited personal capabilities. Practically, this could mean, for instance, creating jobs with a decent wage for handicapped people.
- Ensure a fair balance between efforts and rewards and between demand and control in the accomplishment of economic and social roles.
- Establish effective safety nets guaranteeing minimum level of inescapable functionings for everyone.

In terms of indicators, this would translate in the following kind of information:

- Indicators of achieved functionings and especially referring to people under the minimum level of essential functionings (effectiveness of safety nets and insurances systems). The recent index of material deprivation is an important step in that direction but it needs to be completed with indicators of other forms of deprivation (cultural, educational, health, social support, etc.).
- Indicators of life chances (probabilities of achieved functionings) taking into account inherited capabilities. For instance, difference between the a priori probability of occupying a given socio-economic position and the conditional probability knowing parents' position and maybe others characteristics. This is more or less the social mobility dimension of well-being.
- Indicator of diversity and openness of economic and social status, roles and positions.

- Indicators of exposition to stress (notably fairness of roles requirements in term of balances demand-control and effort-reward.
- Indicators of perceived life chances: perceived freedom to occupy such or such position, achieve such or such functioning.

2.4. WHAT FUNCTIONINGS-CAPABILITIES?

In order to operationalize this framework, we need identifying important functionings-capabilities and finding indicators for each of them. In this section, we propose a grid for helping us to do so. It is based, for one part, on the distinction between 'havings', 'beings' and 'doings' and, for the other one, on the distinction between end-states and state changes or transitions, themselves being either positive or negative. The introduction of the 'havings' category may surprise because, when defining functionings, Sen refers only to 'beings' and 'doings', never to 'havings', as if there was no intrinsic reason for people to value the possession of things. However, if we accept the 'double' valuation assumption, having a house, a car, etc., can be valued both for direct and indirect reasons, as bringing immediate pleasure and as assets or capabilities for travelling, having a more interesting job, etc. As Clark (2005:1362) states it: "Ultimately, the CA must make more space for utility (defined broadly to include all valuable mental states) and say something more concrete about the role of material things (which may have intrinsic value in addition to considerable instrumental significance)."

Indeed, a Q methodology exercise on a sample of statements from the focus groups' minutes¹⁰ has shown that there could be three distinguishable conceptions of the good life according to the emphasis put respectively on the 'Having', the 'Being' and the 'Doing' component of existence.

2.4.1. A Q METHODOLOGY EXERCISE

Q methodology was invented in 1935 by the physician and psychologist William Stephenson. Since then, it has been considerably enriched by the political scientist Steven Brown and has been the subject of many applications in political science, marketing, sociology, etc.

Q methodology was defined by its founder as the 'systematic study of subjectivity'. Indeed, according to Stephenson, when it is communicated (i.e. when points of views on any matter of personal or social importance are explicitly expressed), subjectivity can be systematically analysed: it can be shown to have structure and form, which are made accessible to rigorous examination. While using this method, the researcher "seeks to model – or, more accurately, enables the respondent to model his or her – viewpoints […] through the operational medium of a Q sort" (McKeown & Thomas 1988:12).

Concretely, a Q sort consists in having a set of proposals (i.e. sentences, statements, pictures...) called the Q Sample, sorted by a small sample of subjects, the P sample. The subjects are asked to rank the propositions of the Q sample, usually from those with which they most disagree to those with which they most agree, taking care to reproduce an almost normal distribution. Once this sorting obtained, an analysis reveals the correlations between the different subjects' sortings (i.e. similarities and differences in viewpoints), and a factor analysis reveals factors (i.e. "segments of

¹⁰ A full report on this exercise is available in the Working Paper by BOULANGER, P-M. and LEFIN, A-L. (2009), "Social discourses on wellbeing in Belgium: dimensions and constituents. A Q Methodology approach."

subjectivity" (Brown 1980)) which are in common to the different sortings. Both analysis are combined and make it possible to reveal standard sortings of the proposals.

In WellBeBe, the idea was first to make 'ordinary' citizens debate and argue on what constitutes a 'valuable life', on the meaning of well-being, its dimensions and determinants and the ways to assess it. This debate was organized during the preceding focus groups (cf. supra), with the idea to compose the Q sample out of statements and proposals drawn from the minutes of those discussions. The main goal of selecting a Q sample, is to provide "a miniature which, in major respects, contains the comprehensiveness of the larger process being modelled" (Brown 1980), i.e. a set that is representative of the wide range of existing opinions about the topic. Usually, a structure (called 'design principle') is used in order to avoid the under- or over-sampling of certain components, and, consequently, the incorporation of a bias into the final Q sample.

In WellBeBe, the design emerged from a first rough analysis of the focus groups' minutes. It was presented under the form of a 4X5 matrix. The categories in lines (HAVING- BEING- DOING-INTERACTING) were the 'existential categories' that were borrowed from the Max Neef's classification of human needs (1991), whilst the categories in columns (HOME, i.e. body, family, leisure, friends, ...; WORK, SOCIETY, i.e institutions, public services, ...; GLOBAL ENVIRONMENT, i.e. pollution, mobility, nature, animals, ...) were a kind of summary of the eight dimensions discussed during the focus groups, to which we added a column referring to general definitions of wellbeing and happiness, in order to take into account statements about the relations between the different dimensions.

In total, 169 participants (called the P sample, recruited through emails invitations from each of the WellBeBe researcher) were asked to rank 62 statements, according to the following distribution.

Statement rank	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Number of statements	3	4	5	6	8	10	8	6	5	4	3

Table 4. *Q* sorting scheme

The analysis of the data from Q sorts involved the sequential application of several statistical procedures. First, correlations among Q Sorts were computed, which were then factor-analysed, with the objective to identify a number of significant natural groupings of Q sorts, each one shared by groups of people with similar points of view. This set of factors was then submitted to one or several rotations thanks to which a set of factors was selected. The final step of the data treatment as such, before describing and interpreting the factors, was the calculation of factor scores, i.e. the normalised weighted average statement score of respondents that define each factor.

After many explorations and manipulations, we decided to keep a Varimax rotation with a three factors solution, as the one which provided the most economical and easiest to interpret structure. Eventually, those three factors enabled us to classify 83% of our P sample. After rotation, they accounted respectively for 13%, 11% and 16% of the variance, hence for 40% of total variation, with 35 sortings allocated to the first one, 37 to the second and 67 to the third.

Once we had identified our three significant factors, we then gave the original statements a 'model' factor score in order to examine the sort predicted by the factor model for each factor. Table 5 shows those 'model' factors scores (called also factor arrays) for the 62 statements on these three factors and a summary of the differences between factors 1 and 2, 1 and 3 and 2 and 3.

Statement	Fac	Fac	Fa	DI	DIF	DIF	Σ
	1	2	c	FF	F	F	
			3	1- 2	1-3	2-3	
1. The most important thing to consider in the place you live in	-3	-3	<u>-1</u>	0	2	2	4
is comfort.	_					_	
2. If I could afford it, I wouldn't work anymore	<u>-5</u> <u>2</u>	<u>1</u> <u>5</u>	<u>-4</u> <u>1</u>	6	1	5	12
3. I feel quite happy in the nature: walking, smelling the scents around me, that's great.	<u>2</u>	<u>5</u>	<u>1</u>	3	1	4	8
4. Well-being means not having to struggle to have one's vital needs satisfied.	<u>0</u>	<u>3</u>	<u>4</u>	3	4	1	8
5. What my job brings to my well-being is the fact of being recognised, valued.	<u>1</u>	<u>-1</u>	<u>2</u>	2	1	1	4
6. I find it a pity that we have so many material needs nowadays, to the detriment of our social relations.	1	0	<u>-1</u>	1	2	1	4
7. Well-being is inherent to having political decision.	<u>0</u>	<u>-2</u>	<u>-4</u>	2	4	2	6
8. My well-being of today depends on my situation having	<u>u</u> -1	<u>-2</u>	<u></u>	1	0	1	2
improved or deteriorated as compared to the previous years.							
9. To feel well, I need hobbies in which I can enact my creativity.	2	2	<u>0</u>	0	2	2	4
10. I want to be able to solve my problems by myself, without	-2	-2	-2	0	0	0	0
being dependent on any help from social security or the	-2	-2	-2	U	U	U	O
government.	0	0	1	0	1	0	
11. It's difficult for me to feel quite well with all that misery in the world.	<u>0</u>	<u>-2</u>	<u>-1</u>	2	1	3	6
12. It's important to have a good knowledge of oneself, so as to	<u>5</u>	-3	3	8	2	6	16
get self-controlled, to be able to deal with one's problems and	<u> </u>	J	D	U	_	U	10
hence to feel well with oneself and with the others.							
13. What matters for me is the relationships with children,	<u>3</u>	<u>0</u>	<u>5</u>	3	2	5	10
parents, family.							
14. You feel happier in your job if you are autonomous, if you	2	1	1	1	1	0	2
can make your own decisions.							
15. Having children and caring for them gives meaning to your life.	0	0	<u>4</u>	0	4	4	8
16. Environment is more and more deteriorating: air pollution,	0	<u>3</u>	0	0	3	3	6
noise My well-being is harmed by all that.							
17. A well-being providing standard of living is one that leaves	<u>1</u>	3	4	2	3	1	6
you some money over for leisure and social life after you have							
paid for the necessary.		0		0			
18. For me, it's important to live within easy reach of services,	0	0	1	0	1	1	2
public transport etc	5	2	-3	2	2	Λ	4
19. I don't need to move, to have physical activity to feel well.20. I want to know for sure I can trust our elected	<u>-5</u> -2	-3 -1	-3 <u>0</u>	1	2	0 1	4 4
representatives and to be confident they act for my well-being	_	-1	<u>U</u>	1	4	1	7
and that of all citizens.							
21. Having in my surroundings people from different cultures to	1	1	<u>0</u>	0	1	1	2
communicate with, that is a source of richness and pleasure.							

22 II	2	0	0	2	2	^	
22. Having goals and guiding principles is important for the well-	<u>3</u>	0	0	3	3	0	6
being. 23. Well-being depends a lot on relationships with colleagues, on	1	<u>-1</u>	2	2	1	3	6
job relation-ships in general.	1	<u>-1</u>	2	_	1	J	U
24. I am ready to take risks, to make changes, in order to do what	3	4	<u>0</u>	1	3	4	8
I really like.	U	1	<u>U</u>	1	J	1	Ū
25. Education is not so important: it is not because you know a	-5	-4	-5	1	0	1	2
lot of things that you are richer as a person.	,	1	,		O	1	_
26. The important thing is social security. To be insured if you	<u>0</u>	<u>1</u>	<u>2</u>	1	2	1	4
are ill or if you lose your job.	<u> </u>	<u> </u>	=	-	_	•	•
27. What I am looking for is a job that I enjoy, even if it doesn't	3	3	<u>0</u>	0	3	3	6
pay so well.			_				
28. Living close to green areas contributes to your well-being. I	2	2	<u>0</u>	0	2	2	4
wouldn't feel so good if I had to live far from any nature.							
29. To feel well, you must be healthy, in full possession of your	<u>0</u>	2	1	2	1	1	4
physical abilities.							
30. It is important to live in a convivial place where you can chat	<u>1</u>	<u>0</u>	<u>1</u>	1	0	1	2
with your neighbours.							
31. Being satisfied with what you have cannot bring you	-3	-3	-2	0	1	1	2
happiness.							
32. What you do every day for the environment makes your life	1	1	<u>0</u>	0	1	1	2
go better.							
33. It's important to keep a good balance between your	4	4	<u>5</u>	0	1	1	2
professional and your private life.							
34. Democracy is essential. It ensures the respect of our essential	<u>4</u>	<u>2</u>	<u>3</u>	2	1	1	4
freedom.							
35. I can best evaluate my situation and my level of well-being	<u>-3</u>	<u>-5</u>	<u>-2</u>	2	5	1	8
by comparing with others around me.							
36. It's not working that gives sense to my life.	<u>-2</u>	<u>4</u>	<u>-2</u>	6	0	6	12
37. The older I get, the more material satisfactions I seek.	-4	-4	<u>-3</u>	0	1	1	2
38. The important thing is to live at the place we wished	-1	-1	1	0	2	2	4
39. You feel good when you have time, when you can do things	<u>2</u>	<u>5</u>	<u>3</u>	3	1	2	6
relaxed, when you don't have to rush all the time.	_	_	_				
40. My relationship with my partner has little influence on my	<u>-4</u>	-5	-5	1	1	0	2
being happy or not.	•	0	1	0	1	1	0
41. The more opportunities society offers me, the more likely I	-2	-2	<u>-1</u>	0	1	1	2
am to feel good.	1	1	_	0	4	4	0
42. I feel well when I am with my pet.	-1 1	-1 <u>2</u>	<u>-5</u> <u>0</u>	0 2	4 4	4 2	8 6
43. Travelling, discovering new cultures, new people, being	<u>4</u>	<u> </u>	<u>U</u>	2	4	2	0
provided with a change of scene, all that is important for your							
well-being. 44. Money, financial means are important. Without those, you	<u>-2</u>	<u>-1</u>	<u>2</u>	1	4	3	8
can't do anything.	<u>-z</u>	<u>-1</u>	<u> </u>	1	7	J	0
45. When choosing a job, you have to consider the distance from	<u>-1</u>	0	1	1	2	1	4
your place, and the length or uncomfort of shuttles.		U	1	1	_	1	1
46. To feel well, you have to be adapted to society, to have	<u>-4</u>	<u>-5</u>	<u>-1</u>	1	3	4	8
adopted its values.				-	b	1	J
47. It is not essential to have bought the place you live in, to be	<u>-1</u>	<u>0</u>	<u>-2</u>	1	1	2	4
the owner of it.		<u>~</u>		-	-	_	-
48. There is not so much solidarity nowadays, people use more	0	0	<u>-1</u>	0	1	1	2
"I" than "We" in their speech, and that's a pity.							
49. When you have no job, you have no place in society.	<u>-3</u>	<u>-4</u>	<u>-2</u>	1	1	2	4

50. I prefer not to worry too much, and to live from day to day.	<u>-4</u>	-3	-3	1	1	0	2
51. I need to feel respected by the others.	<u>4</u>	<u>0</u>	<u>4</u>	4	0	4	8
52. I feel well when I can do something for the others.	<u>3</u>	1	<u>2</u>	2	1	1	4
53. Only a common action can make the world better.	2	<u>2</u>	<u>1</u>	0	1	1	2
54. You can't feel really well if you don't feel safe in your	0	-1	2	1	2	1	4
neighbourhood.							
55. Voluntary work and taking part in an association contribute	<u>1</u>	-1	-1	2	2	0	4
to my well-being.							
56. It's important not to be afraid of tomorrow, to feel secure for	<u>-1</u>	<u>1</u>	<u>3</u>	2	4	2	8
the future.							
57. You can be happy while being alone.	<u>-3</u>	<u>4</u>	<u>-4</u>	7	1	8	16
58. I can't feel well if I am not continuously excelling myself, if I	<u>-1</u>	-3	-3	2	2	0	4
don't try always to do better.							
59. Technology doesn't really contribute to my well-being.		-2	<u>-4</u>	0	2	2	4
60. To feel well is first of all feeling well in one's mind.		5	5	0	0	0	0
61. I need to feel surrounded by my friends to be happy.		<u>1</u>	<u>3</u>	4	2	2	8
62. Religion and spiritual life contribute to my well-being.		<u>-4</u>	<u>-3</u>	3	2	1	6

Table 5. Factor scores for varimax rotation with 3 factors

Reading this table enabled us to reveal the characteristics of each factor.

What characterizes Factor 1 is¹¹:

- The importance of work (2) not mainly for the income (44) but for the meaning it gives to life (36) and being valued (5).
- The importance of being active including physically (19) and in leisure (9), travelling and discovering new cultures (43), having control and dealing with one's problems (12), setting oneself goals and guiding principles (22), having autonomy on one's job (14). The emphasis is on being pro-active, not just adapted to society (46). They are ready to take some risks (24) and don't need so much to feel secure (26, 56).
- The necessity of collective action for making a better world (2) notably by participating in associations and doing voluntary work (55) and the importance of democracy (34). They also believe that one cannot be happy while alone (57). They give more importance to social relations than to material needs (6).
- Factor 1 people have less need than others for idleness and relaxation (39) to which they grant a moderate importance. They don't like to live on a day to day base (50).
- Factor 1 people don't want to be too dependent on familial relations, notably with their partner (40). They don't think having children and caring for them gives meaning to life (15) and if their relations with their family matter, they stand between Factor 2 and Factor 3 in that respect. Inversely, they need more than others to be surrounded by their friends (61).

What characterizes Factor 2 is:

- The importance of nature (5, 28) and the environment (16).
- The importance of enjoying oneself in work (27) but the denial of working as an important component of the good life (2) either as giving meaning to it (36), as a source of relationships (23) or of social status (49).

¹¹ The numbers between brackets in what follows refer to statements.

- The rejection of material values and struggling for a living standard (4) and the value given to health, idleness and taking the time (39).
- Factor 2 people don't need others in order to feel well, they are the only ones who believe one can be happy while living alone (57) and they need less than others to be surrounded by their friends. They are also the ones who give the less importance to family relations (13).
- Contrary to Factor 1 and Factor 3 people, they don't really need to feel respected by others or to do something for others (52). Indeed, they fiercely refuse to make their well-being depend on a comparison with other people (35) or on adaptation to society and subscribing to its values system (46).
- They slightly reject the idea that one cannot feel well if one doesn't feel secure in one's neighbourhood (54) and think important not to be afraid of tomorrow (56); something in which social security has a role to play (26).

What characterizes Factor 3 is:

- The importance given to family and children (13, 15) and to having a right balance between work and domestic life (33). On the other hand, the evocation of a possible positive link between well-being and relations with pets (42) provoke a strong rebuttal (-5).
- The recognition of the role of money and material satisfactions in well-being, contrary to the two first factors that minimize the importance of material conditions of life. This is attested by rankings given to statements concerning money (4, 17, 27 and above all, 44). In fact, factor 3 is the only one that gives a positive score (+ 2) to the proposition "Money, financial means are important." Also, contrary to others, they aren't ready to sacrifice income for enjoyment in jobs even if they would not stop working if wealthy enough.
- Nature and the environment seem to play a minor role in factor 3's conception of wellbeing, as testified by the rankings of propositions 3, 16 and 28.
- There is a mild but undeniable valorisation of comfort (1), facility (18, 45) and a rejection of values of performance and excellence (4, 58) and of taking risks (24).
- Security as reality and as feeling is important (56), be it financial brought by social security (26), or by being the owner of one's shelter (47) or physical, in one's living environment (54).
- There is no particular need for active leisure (19) nor for travelling, discovering new people, etc. (43).

To summarize, we would say Factor 1 shows an active conception of well-being. It scores high on almost every sentence that we classified in the DOING category of our factorial design. It scores also high on the INTERACTING-SOCIETY dimension, but not on the others INTERACTING dimensions, except for friends. On the other hand, it clearly gives less importance to the HAVING and BEING components of well-being.

Factor 2 conception of well-being gives less importance to working and acting and more to feeling, relaxing, etc. It is also a surprising combination of individualism by rejection of integration in one's own society and inner circle of relation (family, friends, colleagues) and of communautarism with respect to the external world, others and the environment. Thus, it can be

considered an illustration of the BEING and INTERACTING –ENV.GLOBAL dimensions at the expense of HAVING, on the one hand and HOME and WORK on the other.

Finally, Factor 3 summarizes a conception of well-being giving more importance to comfort and material conditions brought by working and social security and enabling to fully enjoy family relations. It favours a quiet and secure life without being forced to struggle, take risk and outperform. Cleary, the HAVING and INTERACTION-HOME and SOCIETY dimensions hold sway at the expense of the DOING and INTERACTION-WORK and ENV-GLOBAL ones.¹²

To sum up, it is well three different conceptions of well-being that emerged from the Q analysis, each of them being distinguished by the relative importance attached to the 'having', 'doing' and 'being' dimensions of existence and the privileged sector of interactions (i.e. with the close circle of relatives and/or friends, the larger circle of one's society, or the still larger one of global environment and foreign cultures). Of course, these distinctions should not be pushed too far. In fact, the difference between these conceptions of life is more a question of nuance, of privileging one or the other dimension at the expense of others. The three dimensions are necessarily present in all conceptions of the good life but not with the same weight. It just means, for example, that people privileging the 'Being' dimension will, in general, welcome more warmly a legislation that limits the length of the working week than the ones who give more weight to the 'Having' or the 'Doing' dimension.

2.4.3. SUMMARY: AN EXTENDED AND DYNAMIC CONCEPTION OF WELL-BEING.

The following table summarizes our extended and dynamic conception of well-being.

CHANGE -	STATE	CHANGE +
LOOSING	HAVING	ACQUIRING
BECOMING (negative) (RECEDING, DECLINING)	BEING	BECOMING (positive) (DEVELOPING, GROWING)
UNDERGOING	DOING	CREATING

Table 6. Categories of functionings and capabilities in a dynamic perspective

The 'state' column refers to achieved functionings which, when considered as capabilities, can also be subsumed under the categories of capitals: human capital (health, education, know-how,

_

¹² Thus, contrary to what we thought beforehand, INTERACTING is a different axiological dimension than the HAVING, BEING and DOING ones. While different conceptions of the good life can be categorized according to the degree to which they privilege the having, the doing or the being dimensions, none of them can dispense with the interacting one. The issue, therefore, is not interacting rather than being, doing or having, but instead what kind of interaction is favoured, and what context of interaction matters most: the inner circle of family and relatives, the larger circle of work and social relations or the outer circle of humanity and the 'creation' in the biblical sense?

skills...), economic capital (income and wealth, insurances, entitlements) and social capital (social status and roles with the rights and powers attached to them, positions in and importance of social networks). The left and right columns refer to 'changes' in the functionings and capabilities.

As the table highlights, changes can be positive or negative. In general, acquiring is generally (but maybe not universally) more satisfying than just having, becoming (developing, growing...) more than being; creating, more than just doing. On the contrary, having (keeping) will be preferred to losing, being (staying) to becoming-less (receding), doing to undergoing. The positive dynamic component of well-being can be related to the agency goals that Sen considers to be, alongside with well-being, the other dimension of quality-of-life. According to Ruta, Camfield and Donaldson (2006:7-8):

"It would seem reasonable to express agency goals as simply another vector of functionings (...) which while distinct from that collection of functionings that contribute to wellbeing, can nevertheless be included amongst that collection of valued functionings that make up a person's evaluative space. One might even go so far as to conceive of agency as an essential component of wellbeing, although we acknowledge that people can experience different amounts of agency in different domains of life (e.g. as a wife or an employee) and might have different expectations in these areas."

Indeed, in the same way that the *Q*-methodology survey gives some evidence that people differ in their evaluation of the respective worth of 'Havings', 'Beings' and 'Doings', it is very likely that they differ also with respect to the relative importance they give to the (positive) process or the end-state (outcome) dimensions of quality-of-life.

Nevertheless, because of the universality of aversion for loss, the left column of the table (negative process) will almost certainly be considered by everyone as detrimental to well-being. As indicated above, there is a fundamental asymmetry in the way positive and negative changes are valued. The aversion for loss is such that the same amount of change is felt with more intensity when it is a loss than when it is an improvement. It draws our attention to processes of deprivation, de-valorisation such as being fired, falling ill, etc. In our competitive society, aging, notably, is such a process of progressive loss of economic, social and human capital which probably helps explaining the high rate of suicides among the aged.

3. TOWARDS AN OPERATIONALIZATION OF THE DYNAMIC FRAMEWORK

The second phase of the project will be devoted to the operationalization of the framework summarized in table 6. More precisely, it will explore the relationships between the following four blocks of variables:

- Personal assets
- Achieved functionings
- Aspirations-valuation
- Life chances

The fundamental objective is to contextualize the existing, available indicators of achieved functionings as supplied by official statistical offices or other administrative sources by relating them to the interplay of the three other categories.

As for the personal assets, we will concentrate on individual's human (education level, know-how and skills) and economic (wealth, entitlements and permanent income) capitals. The achieved functionings properly said consist of selected "havings", "beings" and "doings". The "aspirations-valuations" box contains the "valences" attributed by people to the diverse functionings and their evaluation of their own achievements in that respect.

All the variables in the three first boxes are individual-level variables and the corresponding data can and will be collected by way of a large sample random survey. Likewise, perceived life chances and the way they contribute to shaping aspirations can be observed at the individual level with adequate interviewing techniques. As opportunity sets, objectives life chances are social structural (or systemic) properties. They cannot be measured at the individual level; they can only be inferred from individual level data and aggregated. One possible (and classical) approach is the social mobility one. It consists in building matrices crossing parents and children class social statuses and inferring the underlying probability distributions. Another, more tentative approach, would consist in analyzing individuals' trade-offs between achievable functionings. Indeed, according to Wright (1997), one can look at life chances as the importance of the trade-offs people face in existence. As illustration, let us consider the consumption-leisure trade-off. Being wealthy means you don't have to trade consumption against leisure. For example, some members of the working class can reach a comfortable level of consumption (in some cases not so inferior than the standard of living of a member of the middle or higher class) but not with the same amount of leisure. In order to reach that standard of living, they will have to trade much more leisure than members of the middle and high class. The same reasoning can be applied to health, family life, personal achievement or any other category of functionings. It can also be applied to other social conditions such as gender, for instance. It is well known that women must trade much more leisure than men in order to achieve the same jobs-related and family-related functionings. So, the analysis of differential trade-offs between the various valued functionings can gives interesting clues to the distribution of capabilities in society.

Admittedly, identifying objective, real trade-offs through questionnaires is itself a complicated and time-consuming task. It would necessitate the recording of detailed money and time budgets, which is beyond our possibilities. Here again, perceived trade-offs will have to be used as proxies for real ones.

IV. CONCLUSIONS

In order to measure well-being or quality of life, even the most convenient definition (concept) will not suffice. We need more than this. What we need is a comprehensive, workable and plausible conception that highlights its main dimensions, indicates the factors that enhance or, on the contrary, hamper it and integrate what empirical science and philosophical analysis have to teach us about its objective and subjective underpinnings. As Scanlon once remarked, "quality of life suffers from an embarrassing richness of possibilities." (1986: 185) and there is necessarily a part of arbitrariness in particular conception of it and also an inescapable loss of richness and content. What we have tried is to reconcile as far as possible two main strands of conception of human well-being: one that emphasizes the universality of human nature and the fundamental likeness of all human's bio-physiologico-psychological functioning, and the one that, on the contrary, sees each member of the human species as unique, different of all others in talents, preferences and capabilities. It is true that we are all the conjunction of a unique genetic make-up (except for pure twins) and a – always singular – personal history which makes us all different. On the other hand, without sharing a common human nature, we would not be able to recognize and assign a cause to the expression of an unfulfilled need in each other, let alone to feel a moral obligation to help if possible. It is also probably thanks to this deep feeling of being members of a common trans-generational community of human beings that something like the concept of sustainable development and concern for very far in the future generations exists and animates us. It is very likely that people in the future will be very different from us in many respects, and almost certainly in skills and tastes. But as long as they will still be human beings, we are concerned with their well-being and feel moral obligations towards them. Notably, we assume that, beyond those differences, they will experience more or less the same emotions and needs than we do which is a contradictory mix of autonomy and belongingness, security and arousal, freedom and commitments, etc.. The main challenge for sustainable development is precisely to let these feelings of moral obligations give way to the necessary changes in our consumption and production patterns while respecting the right for everyone to chose his own path to happiness and flourishing according to his talents, tastes and preferences.

As indicated above, we believe that what is needed to give a satisfying response to Scanlon's and Daniels's urgency problem is a public debate informed by "hard facts" and ruled by the ethics of deliberation. What we have tried to do here is to contribute to this debate by bringing to the forefront some often overlooked information and by submitting to a 'peer-to-peer' discussion a tentative way to account for them.

REFERENCES

Addams, H., Proops, J. (Eds.) (2000). *Social discourse and environmental policy: an application of Q methodology*. Edward Elgar, Cheltenham, UK.

Alkire, S. (2005). "Needs and capabilities" in S. Reader, ed. *The Philosophy of Need*. Cambridge, UK: Cambridge University Press, pp.229-251.

Barbour R. (2007), *Doing focus groups*, The SAGE Qualitative research kit / edited by Uwe Flick.

Blackman, T. (2006). *Placing Health. Neighborhood renewal, health improvement and complexity*. Bristol: The Policy Press.

Blane, D. (2006). "The life course, the social gradient and health", in M.Marmot and R.G. Wilkinson, eds. *Social Determinants of Health*, pp.54-78.

Brown, Steven R. (1980), Political subjectivity. New Haven, CT: Yale University Press.

Brunner, E., and M. Marmot (2006). "Social organization, stress, and health" in M.Marmot and R.G. Wilkinson, eds. *Social Determinants of Health*, pp.6-31.

Caspi, A., A. Taylor, T.E. Moffitt and R. Plomin (2000). "Neighborhood Deprivation Affects Children's Mental Health: Environmental Risks Identified in a Genetic Design", *Psychological Science* 11(4):338-42.

Common, M. (2008) "Measuring national economic performance without using prices", *Ecological Economics*, 64 (1): 92-102.

Comim, F. (2003). "Capability Dynamics: The Importance of Time to Capability Assessments". St Edmund College. Cambridge. Mimeo.

Constanza R. et al (2007), "Quality of life: an approach integrating opportunities, human needs, and subjective well-being", *Ecological Economics* 61, p. 267 - 276

Clark, D.A. (2005). "Sen's Capability Approach and the Many Spaces of Human Well-being", *The Journal of Development Studies*, Vol 41, 1339-1368.

Cobb C.W. and Rixford C.(1998), *Lessons learned from the history of social indicators*, Redefining Progress, http://www.rprogress.org/publications/1998/SocIndHist.pdf

D'Agata A. (2007). "Endogeneizing Sen's Capabilities: An adaptive dynamic analysis". *The Journal of Socio-Economics*, 36, 177-190.

Dahrendorf, R. (1979). Life Chances. Pheonix Book. Chicago: Chicago University Press.

Daniels, N. (1981) "Health-Care Needs and Distributive Justice". *Philosophy and Public Affairs* 10 (2): 146-79.

Daniels, N. (1990). "Equality of What: Welfare, Resources, or Capabilities?", *Philosophy and Phenomenological Research*, 50 (suppl.):273-296.

Diener, E. (1994), "Assessing subjective well-being: progress and opportunities", *Social indicators Research* 31, pp. 103-157

Dolan P., Peasgood T. and White M. (2008). "Do we know what makes us happy? A review of the economic literature on the factors associated with subjective well-being". *Journal of Economic Psychology* 29:94-122.

Donner, Jonathan C. (2001), "Using Q-Sorts in participatory processes: an introduction to the methodology", *Social Development Papers* 36: 24-49

Downey, L. and M. Van Willigen. (2005)."Environmental Stressors: The Mental Health Impact of Living near Industrial Activity", *Journal of Health and Social Behavior*. Vol. 46, N°3:289-305.

Doyal, L. and Gough, I. (1991). A Theory of Human Needs. Basingstoke: Macmillan.

Dryzek, J. and J. Berejikian (1993). "Reconstructive democratic theory". *American Political Science Review*, 87 (1) 48-60.

Elliott J., Heesterbeek S., Lukensmeyer C., Slocum N. (2006), *Participatory Methods Toolkit*, Edited by King Baudouin Foundation and the Flemish Institute for Science and Technology Assessment (viWTA).

Elster, J. (1982). "Sour grapes – utilitarianism and the genesis of wants" in A.K. Sen and B. Williams, eds. *Utilitarianism and Beyond*. Cambridge: Cambridge University Press, pp219-239.

Fern E. (2001), Advanced Focus Group Research, Sage publications.

Ferrer-i-Carbonell, A. and Frijters, P. (2004). How important is methodology for the estimates of the determinants of happiness? *Economic Journal*, vol. 114, pp. 641-659.

Gibbs A. (1997), *focus groups*, Social Research, Update issue 19, Department of Sociology, University of Surrey, Guildford GU2 7XH, England. http://sru.soc.surrey.ac.uk/SRU19.html

Greenbaum T. (2007), *The Practical Handbook and Guide to Focus Group Research*, Lexinton books, 247p

Hagerty M.R., Cummins R.A., Ferriss A.L., Land K., Michalos A.C., Peterson M., Sharpe A., Sirgy J. and Vogel J. (2001): "Quality of Life Indexes for National Policy: Review and Agenda for Research," *Social Indicators Research*, 55(1) pp.1-91.

Hajiran H, (2006), "Toward a Quality of Life Theory: net Domestic Product of Happiness", *Social Indicators Research*, 75, pp. 31-43

Hobfoll, S.E. (2001). "The Influence of Culture, Community, and the Nested-Self in the Stress Process: Advancing Conservation of Resources Theory", *Applied Psychology*, 50 (3):337-421.

Honneth, A. (2006). La société du mépris. Paris: La Découverte.

Kahneman and Tversky (2000). *Choices, Values and Frames.* New York: Russel Sage Foundation and Cambridge, UK: Cambridge University Press.

Karasek, R.A. (1979). "Job demands, job decision latitude and mental strain: implications for job design". *Administrative Sciences Quaterly* 24:285-308.

Kasser, T. (2002). The High Price of Materialism. Cambridge Mass.: the MIT Press.

Krueger R., Casey, M. (2000), *Focus groups. A practical guide for applied research*, (3rd ed.). Thousand Oaks: Sage ed., 215p

Larson K., Grudens-Schuck N., Allen L. (2004), *Can You Call It a Focus Group?*, Ames, Iowa: Iowa State University Extension. http://www.extension.iastate.edu/Publications/PM1969A.pdf

Marmot, M. (2005). Status Syndrome. London: Bloomsbury.

Marmot, M., C.D. Ryff, L.L. Bumpa ss, M. Shippley and N.F. Marks (1997)." Social inequalities in health: next questions and converging evidence", *Soc. Sci. Med.* Vol 44, N°6, pp.901-910.

Marmot, M., J. Siegrist and T. Theorell (2006)." Health and the psychosocial environment at work", in M. Marmot and R.G. Wilkinson, eds. *Social Determinants of Health*. Oxford: Oxford University Press.97-130.

Marmot, M. and R. G. Wilkinson, eds. (2006). *Social Determinants of Health*. Oxford: Oxford University Press.

Max-Neef, M.A. (1992). Human Scale Development. New York and London: The Apex Press.

McKeown, Bruce & Thomas, Dan (1988). Q Methodology. Newbury Park: Sage Publications

Morgan D. (1998), *The focus group guide book*, Focus group kit 1, Sage publications.

Neumayer, E. (2003). *Weak versus Strong Sustainability*. Cheltenham, UK. Northampton, MA, USA: Edward Elgar.

Offer, A. (2006). The Challenge of Affluence. Oxford: Oxford University Press.

Pearlin, L.(1989). "The Sociological Study of Stress", *Journal of Health and Social Behavior*. Vol 30, N°3:241-256.

Pearlin, L. S. Schieman, E.M. Fazio, S.M. Meersman. (2005). "Stress, Health, and the Life Course: Some Conceptual Perspectives". *Journal of Health and Social Behavior*. Vol 46, N°2, 205-219.

Puchta C., Potter J. (2004), Focus Group Practice, London: Sage ed

Reynolds, J.R. (1997). "The Effects of Industrial Employment Conditions on Job-Related Distress", *Journal of Health and Social Behavior* 38(2):105-16.

Ruta,D., L. Camfield, C. Donaldson. (2006). "Sen and the art of quality of life maintenance: towards a working definition of quality of life". WeD Working Paper 12, ESRC Research Group on Wellbeing in Developing Countries.

Scanlon, T.M. (1977). "Preference and Urgency". Journal of Philosophy 77(19):655-69.

Scanlon, T.M. (1986). "Value, Desire and Quality of Life", in Martha C. Nussbaum and A. Sen, eds. *The Quality of Life*. Oxford: Clarendon Press: 185-201.

Schokkaert E. (2007), The Capabilities Approach, KULeuven CES Working Paper, Forthcoming

Sen, A.K. (1985). Commodities and Capabilities. Amsterdam, New York: North Holland.

Sen, A.K. (1992). *Inequality Re-examined*. New York, Oxford UK: Russel Sage Foundation: Clarendon Press.

Sen A.K. (1997). « Editorial : Human Capital and Human Capability » *World Development*, Vol 25, N°12, pp.1959-1961.

Swedeen, P. (2006). "Post-normal science in practice: A Q study of the potential for sustainable forestry in Washington State, USA." *Ecological Economics* 57: 190-208.

Van den Bergh, Jeroen C.J.M. (2007). "Abolishing GDP". Tinbergen Institute Discussion Paper, TI-2007-019/3. Vrije Universiteit Amsterdam and Tinbergen Institute.

Van Exel, N. Job A. & de Graaf, Gjalt (2005). Q METHODOLOGY: A SNEAK PREVIEW. Online document, available from qmethodology.net.

Veenhoven, R., (2000a), "Freedom and happiness: A comparative study in 44 nations in the early 1990's," in E. Diener and E.M. Suh (eds.), Culture and Subjective Wellbeing, Cambridge, MA: MIT Press, p. 257-88

Veenhoven R., (2000b), The four qualities of life, ordering concepts and measures of the good life, in: *Journal of Happiness studies* 1, pp. 1-39.

Verme, P. (2008). "The Role of Freedom and Control in Explaining Happiness". Legatum Prosperity Symposium, Brocket Hall, U-K.

Wilkinson, R.G. (2006). "Ourselves and others- for better or worse: social vulnerability and inequality", in Marmot and Wilkinson (2006), eds., pp. 341-359.

Wright, E.O. (1997). Class Counts. Comparative Studies in Class Analysis. Cambridge: Cambridge University Press.

ANNEXES

The different Working Papers, on which this final report is based, are developing further each of the particular research strands, and can be consulted and downloaded from the website of the Belgian Science Policy (www.belspo.be/FEDRA) and from the website of the research project (http://www.wellbebe.be).

Working papers of the WellBeBe project:

Annex 1

PRIGNOT, Nicolas (2008). "A Review of the Quality of Life Literature", Bruxelles: CEDD-IGEAT. ULB.

Annex 2

DEFLOOR, Bart & VAN OOTEGEM, Luc (2008): "Using functionings and capabilities to assess individual well-being", Gent, Leuven: Hogeschool Gent - HIVA-KUL.

Annex 3

BOULANGER, Paul-Marie. (2008). "Substantive conceptions of well-being and quality of life: needs and stress theories". Ottignies: IDD.

Annex 4

PRIGNOT, Nicolas, SPILLEMAECKERS, Sophie and VAN OOTEGEM, Luc (2009): "Focus groups as a tool for the analysis of well-being" HIVA-KUL & CEDD-IGEAT. ULB

Annex 5

BOULANGER, Paul-Marie, LEFIN, Anne-Laurence (2008), "Social discourses on well-being in Belgium: dimensions and constituents. A Q methodology approach". Ottignies:IDD.