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The Capability Approach in Practice*

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In the last decade, the capability approach has become increasingly prominent in academia and policy making. The core claim of the capability approach is that assessments of the well-being or quality of life of a person, and judgements about equality or justice, or the level of development of a community or country, should not primarily focus on resources, or on people's mental states, but on the effective opportunities that people have to lead the lives they have reason to value.[1] The core concepts in the capability approach are a person's functionings, which are her beings and doings (for example, being well-fed or literate), and her capabilities (the genuine opportunities or freedoms to realize these functionings). In academia, the approach is now part of the standard curriculum in courses on welfare economics, development studies and political philosophy, and it is regularly taught as part of courses in education, disability studies, public health, and gender studies, among others. In September 2004, the Human Development and Capability Association was founded, following four well-attended international conferences on the capability approach.[2] The capability approach has also had political impact. Since 1990, the United Nations Development Programme (UNDP) has annually published the *Human Development Report*, which is in part based on the capability approach.[3] There are also more than 500 regional or country-level *Human Development Reports,* which discuss regional, national and local development strategies using the same theoretical tools and framework. Some governments are also showing interest in the approach for national policy making. In Germany, the second national report on poverty and wealth took inspiration from the capability approach to analyze poverty and

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[1]The approach has been pioneered by Amartya Sen and has more recently been further developed by Martha Nussbaum and others. Some of Sen's and Nussbaum's key publications are Sen (1980, 1985, 1987, 1992a, 1999) and Nussbaum (2000, 2003, 2006).

[2]See: http://www.hd-ca.org (accessed 23 August 2005).

[3]UNDP 1990–2005; see also Fukuda-Parr 2003.

social exclusion.[4] It thus seems that the capability approach has captured the imagination of a growing number of researchers, policy makers and other public actors.

But some also question the practical significance of the capability approach to policy making and empirical assessment. Robert Sugden, for instance, argued that:

> given the rich array of functionings that Sen takes to be relevant, given the extent of disagreement among reasonable people about the nature of the good life, and given the unresolved problem of how to value sets, it is natural to ask how far Sen's framework is operational. Is it a realistic alternative to the methods on which economists typically rely—measurement of real income, and the kind of practical cost-benefit analysis which is grounded in Marshallian consumer theory?[5]

Similarly, at one point John Rawls labelled the capability approach "an unworkable idea."[6] As Amartya Sen himself has recently confirmed, "there are widespread doubts about the possibility of making actual empirical use of this richer but more complex procedure."[7]

In response to such doubts, this paper provides a survey of recent attempts to put the capability approach into practice. What kind of questions can be and have been answered using this framework? Do we have any evidence that the capability approach is making a difference to empirical studies or policy evaluations, or is having an impact as the basis for a critique of social arrangements?

The structure of this article is as follows. Part I identifies three theoretical specifications that are needed for applying the capability approach. Part II presents a survey of studies where the capability approach is put into practice, and addresses the difference that the capability approach makes when evaluating well-being and social arrangements. The article concludes by highlighting some unresolved issues, concerns and challenges.

I. THREE THEORETICAL SPECIFICATIONS

The capability approach is a broad normative framework for the evaluation and assessment of individual well-being and social arrangements, the design of policies, and proposals about societal change. It can be used to empirically assess aspects of an individual's or groups's well-being, such as inequality or poverty. It can also be used as an alternative to mainstream cost-benefit analysis, or as a framework to develop and evaluate policies, ranging from welfare state design in affluent societies, to development policies by governments and non-governmental organisations in developing countries. It can also be used as a normative basis for

[4]Bundesministerium für Gesundheit und Soziale Sicherung 2005; see also Volkert 2005.
[5]Sugden 1993, p. 1953.
[6]Rawls 1999, p. 13.
[7]Sen 2005, p. vii.

social and political criticism.[8] The capability approach is not a theory that can *explain* poverty, inequality or well-being;[9] instead, it provides concepts and a framework that can help to *conceptualize* and *evaluate* these phenomena.[10]

The capability approach in practice comes in a variety of forms, in part because of the wide scope of the approach, but also because the approach is radically *underspecified*: there are a number of theoretical lacunae that can be filled in a variety of ways. How one makes these specifications depends in part on the kind of theory (for example, a theory of justice, or a theory of welfare economics), or the kind of application (for example, a critique on existing social practices, or a measurement exercise), but it also depends in part on particular normative and epistemological assumptions. Three theoretical specifications have emerged from the literature as particularly important: the choice between functionings and capabilities, the selection of relevant capabilities, and the issue of weighting the different capabilities for an overall assessment (also known as the question of indexing or trade-offs).

The first specification is whether to focus on capabilities or functionings. Which considerations can help us make this decision? The first consideration is the argument most often given by Sen and Nussbaum: by focusing on capabilities rather than functionings, one is not imposing a particular notion of the good life, but instead aiming at providing a range of possible ways of living. Thus, the liberal nature of the capability approach, or an anti-paternalism consideration, motivate this principled choice for capabilities. A second normative consideration emerges from the influence of so-called "luck-egalitarianism" within contemporary political philosophy: each person should have the same real opportunity (capability), but individuals should be held responsible for their own choices. This responsibility-sensitivity principle is widely endorsed, not only in debates on equality in political philosophy, but also in the mathematical models of normative welfare economics. If one wants to implement this principle of responsibility-sensitivity, then specifications and applications of the capability approach should focus on capabilities, rather than functionings. However, even at the purely normative-theoretical level there is disagreement on whether we should endorse responsibility-sensitivity in developing the capability approach.[11] A third argument focuses on the nature of the applications: in some specific

[8]For an interdisciplinary introduction to the capability approach, see Robeyns (2005b). For the contribution of the capability approach to theories of justice, see Brighouse (2004, ch. 4); to development ethics, see Gasper (2004, chapter 7); to welfare economics, see Basu and López-Calva (forthcoming), and Kuklys and Robeyns (2005).

[9]Of course, the explanation of poverty or inequality also relies on concepts, and therefore functionings and capabilities can serve as parts of an explanation.

[10]The capability approach can be further developed in different directions, for example as a theory of justice (Nussbaum 2006) or as a theory of (human) development serving as an alternative for neoliberalism (Salais and Villeneuve 2004; UNDP 1990–2005). Such theories, which are developing the capability approach from a general framework into a more specific theory, are always adding other bits of theory or normative claims to the general framework. These more specific capability-based theories are beyond the scope of this paper.

[11]See Fleurbaey 2002, Vallentyne 2005, and Wolff and de-Shalit (forthcoming).

applications it makes more sense to focus on functionings directly. For example, if we want to measure well-being outcomes, then the appropriate metric is functionings rather than capabilities. Another reason to focus on functionings is the scale of the application. For example, at the individual level there may always be individuals who have the effective opportunity of being healthy and well-nourished but opt not to be so, for example, if they are fasting or are on a hunger strike. For large numbers, however, we can safely assume (except in special circumstances, such as during Ramadan in a Muslim community) that virtually all people who have the genuine opportunity of not being hungry would also choose not to be hungry, since there is no reason to think that people would in any large numbers choose to fast.[12] Hence if a few people choose to fast, they will statistically be "outliers" and not have a significant effect on the quantitative empirical results. A fourth argument that sometimes plays a role is that even if we are ultimately concerned with people's capabilities, informational problems or measurement constraints might make a focus on functionings the best available or only feasible option. As will be discussed below, this has been the case with most large-scale quantitative empirical applications of the capability approach, as most available datasets do not contain much information that allows us to draw conclusions on people's capability sets. Sometimes the information on functionings-outcomes can be used to derive conclusions about people's capabilities. For example, if the distribution of functionings of two groups is significantly different, and there is no convincing independent reason why these groups would systematically choose differently from the same capability sets, then one can deduce from their different functionings distributions that they did not have the same capabilities in the first place.[13] A fifth argument has been put forward by Basu and López-Calva.[14] They have rightly pointed out that some capabilities may be open to people, but only if other people do not also want to realize that capability. For example, two spouses may each individually have the capability of holding demanding jobs which are incompatible with large caring responsibilities, but if these spouses also have small children or other relatives with extensive caring needs, then at best only one of them may effectively realize that capability. Since capability sets may therefore include freedoms that are to some extent spurious since they depend on the choices of other people, it might be better to focus on the capability set *and* on what people have been able to realize from their capability sets, that is, their achieved functionings. Finally, the choice between functionings and capabilities can also be bridged by a conceptual move. Sen has proposed the concept of "refined functioning," being a functioning which takes note of the available alternatives. The capability of a person would

[12]Wolff and de-Shalit (forthcoming, section 3.1).

[13]This is an application of the method suggested by Phillips (2004), which has been empirically applied by Robeyns (2003, 2006). See also LaVaque-Manty (2001).

[14]Basu 1987, p. 74 and Basu and López-Calva (forthcoming).

then partly be reflected in her refined functionings achievement.[15] Alternatively, one could focus on achieved functionings levels, but include the exercise of choice as one of the relevant functionings.[16] In conclusion, there are good arguments for the use of both functionings and capabilities. The choice to focus exclusively on one of them, or on both of them, will depend on the kind and context of the application, on certain normative choices, and (if applicable) on the data-availability.

The second theoretical specification is the selection of capabilities. The question of which capabilities are relevant has provoked a lot of debate in the capability literature. At the level of ideal theories of justice, some have argued that each and every capability is relevant and should count in our moral calculus.[17] Others have argued that considerations of justice require that we demarcate morally relevant from morally irrelevant capabilities.[18] This demarcation could be done by limiting the relevant capabilities to those that are needed in order to be able to participate as a citizen,[19] or by endorsing a well-defined list of capabilities.[20] Moving from ideal theory to non-ideal theory and empirical applications makes the question of the selection of relevant capabilities even more complicated, as other concerns such as feasibility, data availability, practical relevance and even parsimony can play a role. Several proposals on which capabilities to select have been advanced, ranging from substantive proposals with elaborate theoretical underpinnings, through several procedural methods, to the a-theoretical practice that one should simply take a particular survey which contains rich data and let a statistical technique (such as factor analysis) decide. At one end of this spectrum is the well-known list of Martha Nussbaum, which contains capabilities that are grouped together under ten "central human capabilities."[21] Nussbaum defends these capabilities as being the moral entitlements of every human being. The list is formulated at an abstract level, and the translation to implementation and policies should be done at a local level, taking into account local differences. Nussbaum claims that this list can be derived from a Rawlsian overlapping consensus—but her critics have doubted that this is possible,[22] and said that she has no authority to speak on behalf of the people to whom this list would apply,[23] and that her list therefore lacks legitimacy.[24] She stresses that her list is "humble and open-ended" and always

[15]Sen 1987, 36–37.
[16]Stewart 1995, Fleurbaey 2002.
[17]Vallentyne 2005.
[18]Pogge 2002, Nussbaum 2003.
[19]Anderson 1999.
[20]Nussbaum 2000, 2003.
[21]Nussbaum's ten capabilities are: Life; Bodily health; Bodily integrity; Senses, imagination and thought; Emotions; Practical reason; Affiliation; Other species; Play; and Control over one's environment. For more details, see Nussbaum (2003, pp. 41–42).
[22]Barclay 2003.
[23]Stewart 2001, Menon 2002.
[24]Robeyns 2005c.

open for revision, but this "disclaimer" has not convinced her critics who have argued that there is insufficient scope for democratic deliberation in her capabilities approach.[25] Amartya Sen has explicitly refrained from defending a well-defined list of capabilities, but this has not prevented him from using particular selections in his empirical work.[26] However, he has never explained how such a selection could be done, beyond stating in general terms that some democratic process and public reasoning should be involved. Some procedural ways to select the relevant capabilities have been proposed by Sabina Alkire and myself. Alkire proposes to select capabilities starting from Finnis' practical reasoning approach.[27] According to Alkire, Finnis claims that by iteratively asking "Why do I do what I do?" one comes to the most basic reasons for acting: life, knowledge, play, aesthetic experience, sociability (friendship), practical reasonableness and religion. This list is then used as a point of departure for an iterative participatory process that aims at the identification of the capabilities which a community finds valuable. Alkire has used this method in her evaluation of three small-scale development projects, which will be discussed below. I have proposed procedural criteria for the selection of capabilities: explicit formulation (the list should be made explicit, discussed and defended); methodological justification (the method that generated the list should be clarified, scrutinized and defended); different levels of generality (if a selection aims at an empirical application or is intended to lead to implementable policy proposals, then the list should be drawn up in at least two stages, whereby each stage will generate a list at a different level, ranging from the level of ideal theory to more pragmatic lists); and exhaustion and non-reduction (no important capabilities should be left out).[28] These criteria are merely a sort of "check and balance" for the fact that every policy maker or researcher is situated in a personal context and therefore needs to pay special attention to avoid biases that are introduced by their (personal and disciplinary) background. This method has been applied in a number of applications, including my studies on gender inequality in affluent societies and Walker's study on educational policy making in South Africa.[29] Biggeri and colleagues have combined my method with participatory methods in a study in which children identified the capabilities that are relevant for their own well-being.[30]

The third theoretical specification that is required for applications is the issue of aggregation. Aggregation in the capability approach has several aspects. First, at the level of the unit of analysis (that is, the individual) one needs to decide whether the capabilities should be aggregated (that is, intrapersonal aggregation),

[25]Sen 2004.
[26]For Sen's arguments against a well-defined list, see Sen (1993, 2004).
[27]Alkire 2002, esp. ch. 2.
[28]Robeyns 2003, 2005c.
[29]Robeyns 2003, 2006 and Walker 2006.
[30]Biggeri et al. 2006.

and if so, what their relative weights will be. Second, depending on the type of exercise, one might also need to aggregate the data over the individuals (that is, interpersonal aggregation). In addition, if both kinds of aggregation are performed, then the order of aggregation becomes important, since one can either first aggregate intrapersonally and then interpersonally, or the other way around.[31] If one decides to aggregate, how should different capabilities be traded-off against each other, or how should an index of functionings be constructed? Note that not all applications of the capability approach require intrapersonal aggregation. For example, if one's goal is to provide a relatively fine-grained description of the distribution of well-being in a particular population, or the nature of group inequality, then that goal is often better served by *not* indexing the different functionings, as this amounts to a loss of information. Secondly, some have argued against trade-offs as they consider the different capabilities incommensurable, or regard each capability as an entitlement that should never be sacrificed for another. For example, Nussbaum argues that her ten capabilities cannot be traded off against each other, and that the state should provide each citizen with a minimum threshold of each capability. But while seeing capabilities as such fundamental entitlements may be a useful philosophical exercise, it is of limited help in many instances of empirical evaluation and policy making.

So what proposals and actual practices of weighting have been developed in the capability literature?[32] At least three kinds of weighting are relevant. The first kind is the weighting of the different variables into one functioning (for example, the functioning of social support might be based on the variables "having someone to talk to in case of distress," and "having someone to lend money from in case of financial need"). Secondly, there is the intrapersonal weighting of different functionings into an individual well-being or quality of life indicator. And thirdly, one could also attach weights when weighting interpersonally (for example, in the case of a poverty index, all individuals who score above the poverty line are given a weight of zero).

In the capability literature, the discussion on weights focuses mainly on the first two kinds of weighting. For both kinds of weighting three kinds of weighting systems have been used. The first weighting system is to simply allocate certain weights (and justify them). This weighting system has been applied by the UNDP in the construction of the Human Development Index, where the three functionings (educational achievement, life expectancy and economic standard of living) each receive an equal weighting. The functioning of educational achievement itself is composed of literacy (with a weight of two thirds) and school enrolment (weight of one third). Many economists find this an entirely arbitrary procedure and disapprove of the explicit value judgements involved,

[31]These methods do not yield the same measurements.
[32]See also Wolff and de-Shalit (forthcoming, ch. 6).

but others appreciate the clarity that such an explicit weighting procedure brings. Obviously, one can always change the relative weights to test the robustness of the empirical results. The second weighting system is to derive the weights in a statistical way. If functionings are measured using a statistical method, then the weights are derived from the variance of the indicators.[33] Again, such statistical methods have their proponents and opponents. The proponents like the fact that they can use statistical information to determine the weights, and that they do not have to use what are regarded as "simplistic" methods such as the weighting systems in which explicit choices must be made. But there is very little discussion about the validity and plausibility of the normative assumptions underlying these statistical methods. The third and final weighting system is to use a type of social choice procedure.[34] The idea would be to let the relevant group of people decide on the weights. In some contexts, such as small-scale projects or evaluations, this could be done by participatory techniques. For larger scale policy contexts, discussion of the relative weights is the substance of political debates. For large scale measurement applications, information on the weights could in theory be collected using questionnaires, but this method has not yet been applied in practice.

II. THE CAPABILITY APPROACH IN PRACTICE

A. Preliminary Remarks

How has the capability approach been put into practice? It is important to stress that not all applications of the capability approach require *empirical* research techniques. Some applications are based on analytical reasoning or critical analysis, for example when using the capability approach in order to critique an existing social practice or when drawing on already existing empirical findings. But many applications of the capability approach do rest on new empirical analysis, and therefore require the use of empirical research techniques. Not surprisingly, given the wide scope of capability applications and the highly multi- and interdisciplinary character of this literature, a wide variety of empirical research techniques have been used.[35] The main measurement techniques that have been explored so far are descriptive statistics of single indicators, scaling, fuzzy sets theory, factor analysis, principle component analysis, and structural

[33]Using the variance of the indicators results in a statistically optimal weighting system, but this implies that we interpret the variance of the variables as indicative of how much information they can give us about the functioning. See Kuklys 2005, pp. 37–38.

[34]Chakraborty (1996) has proposed an axiomatic approach to aggregate the relative weights held by different individuals. To my knowledge, this has not yet been applied in practice.

[35]These research techniques are required for two goals: the measurement of functionings from the data (most functionings are constructed based on several variables), and, if applicable, the analysis of the determinants of the functionings achievements. See Kuklys 2005, pp. 33–35.

equation modelling.[36] Before embarking on a review of the actual applications, let us ask how the quantitative applications deal with the theoretical specifications outlined in the previous section.

The first observation is that virtually all the quantitative applications are using existing datasets, such as the British Household Panel Survey (BHPS) or the South African SALDRU household survey. None of these data have been collected with the aim of measuring functionings. While most of these surveys are very rich in the range of domains on which they include information, these data are not collected with the aim of capturing people's functionings well-being, let alone their capabilities.

As far as the choice between functionings and capabilities is concerned, all applications have focussed on functionings rather than capabilities. Some surveys, like the BHPS, do contain a few questions that give us information on capabilities rather than achieved functionings, but they do not cover all domains of well-being.[37] Some researchers are currently working on the measurement of capabilities rather than functionings, but this research is at an early stage and not yet published.

The second and third theoretical specifications discussed in Part I have been dealt with in more detail in the measurement literature. If an empirical application employs descriptive analysis, scaling, or fuzzy sets theory, both the selection of relevant functionings and the choice of the relative weights can be theoretically underpinned. In a number of measurement studies using these techniques, the selection of relevant functionings was first established theoretically; any variable that could be found in the chosen dataset that might be a useful variable for this theoretical selection of functionings was then included in the analysis. Most studies using factor analysis do not mention any theoretical selection of specific functionings that they hope to measure, or variables that are deemed useful observable variables for the latent functionings. Instead, all these potentially useful variables are subjected to a statistical technique (factor analysis). Only those indicators that are highly correlated to the latent functioning are selected. In factor analysis the weights of the different variables that together form one functioning are thus not chosen by the researcher, but derived statistically. Unfortunately, most measurement studies do not spend any time explaining and scrutinizing the normative underpinnings of the statistical techniques they use, and are writing for a narrow readership of fellow econometricians and statisticians.

[36]For explanations of these empirical techniques in the context of functionings and capabilities measurement, and discussions of some of their strengths and limitations, see Brandolini and D'Alessio (1998), Kuklys (2005) and Qizilbash and Clark (2005). Ramos and Silber (2005) have measured functionings well-being using efficiency analysis, which is not yet widely used in this literature.

[37]On measuring functionings and capabilities with the BHPS, see Anand, Hunter and Smith (2005), Ramos and Silber (2005), and Robeyns (2006).

So far I have only discussed the quantitative empirical techniques. Some studies have also used qualitative empirical techniques. Alkire has used participatory methods both for the selection of the functionings, and also for the assessment of well-being changes.[38] The context of her work was the assessment of three small-scale development projects in Pakistan which will be described in more detail below. To assess the capability impact of these projects, discussions were organized within the community. These began by asking what kind of valuable and negative impacts the people had noticed. After the first discussion, the facilitator enquired about the underreported impacts that they might have noticed. In the next stage the relatively trivial impacts were separated from the important ones, either by group discussion, or by asking each participant individually to rank her top three most important functionings. The participatory assessment closed with a final group discussion reflecting on an overall assessment of the impacts of the project. Alkire subsequently used this participatory information to analyze how the three projects could be ranked in terms of their poverty-reducing (that is, capability enhancing) effects. In contrast to standard cost-benefit analysis, where prices are used to aggregate all the benefits and costs, the capability assessment could only provide an ordinal ranking. However, even based on this ordinal information alone, Alkire found that for two of the three projects, the cost benefit analysis and the functionings assessment went in different directions. Qualitative methods have also been used in a recent study on deprivation in affluent societies by de-Shalit and Wolff.[39] In order to find out which capabilities are important to assess the well-being of the disadvantaged in society, they conducted interviews with disadvantaged people, but also with the "experts" who are dedicated to improving their quality of life. They also asked the interviewees to list the three most important functionings, in order to get a sense of which functionings are regarded as the most important.

After these preliminary remarks, we can now examine the kind of research that has been conducted with the capability approach, and whether this approach differs from more established approaches in the evaluations, assessments, critiques and policy prescriptions it produces.

B. How Has the Capability Approach Been Applied?

In this section, I will describe some of the questions that have been addressed using the capability approach, grouped under the different themes that the capability approach in practice has covered so far.[40] At present, there are at least nine different types of capability applications: general assessments of the human

[38]Alkire 2002, ch. 6.

[39]Wolff and de-Shalit (forthcoming).

[40]Due to space constraints, this survey does not aim to be exhaustive but rather to give a sense of the applied capability studies literature. I have ignored the applications and policy documents that make very loose reference to the capability approach, or which use it in a conceptually confused way.

development of a country; the assessment of small scale development projects; identification of the poor in developing countries; poverty and well-being assessments in advanced economies; an analysis of deprivation of disabled people; the assessment of gender inequalities; theoretical and empirical analyses of policies; critiques on social norms, practices and discourses; and finally, the use of functionings and capabilities as concepts in non-normative research.[41]

i. General Assessments of the Human Development of Countries

When he started to develop the capability approach in the early 1980s, Sen pointed out that while the (roughly equivalent) GNP per capita of Brazil and Mexico was more than seven times the GNP per capita of India, China and Sri Lanka, functionings performance in terms of life expectancy, infant mortality and child death rates was most favourable in Sri Lanka, better in China than in India, and better in Mexico than in Brazil.[42] Although Sen used only three very basic functionings, he showed that rankings of countries based on GNP per capita can be quite different from rankings based on the selected functionings. Since 1990, the UNDP has adopted such basic insights from the capability approach in its annual *Human Development Reports*, which describe a country's human development, and measure it by the human development index (HDI).[43] The HDI is an index between 0 and 1, whereby a country that would have the highest average achievement on each of the functionings would score 1. The functionings selected for the HDI are life expectancy at birth, education (measured by adult literacy and educational enrolment rates, whereby the former is weighted for 2/3, and the latter for 1/3), and adjusted GDP per capita, which serves as a proxy for the material aspects of functionings well-being. The position of some countries differs significantly depending on whether countries are ranked using GDP or HDI. For example, in 2004 the United Arab Emirates ranked 23th in terms of GDP per capita, but only 46th in terms of HDI (mainly due to its relatively poor educational performance).[44] However, the *Human Development Reports* contain more than just human development statistics: each year the report focuses on a theme that is of particular importance to development, not understood as economic growth, but as the expansion of people's capabilities (such as globalisation, new technologies, human rights and gender). Many countries and regions now also have local human development offices, which are using the same general development paradigm and analytical tools to analyze and discuss the development record and strategies of that country or region.[45] In addition,

[41]These types of capability research overlap to some extent. They are categorized so as to give a fair representation of the literature of applied capability studies, but they could also have been categorized differently according to methodological or other criteria.

[42]Sen 1985, pp. 46–51.

[43]UNDP 1990–2005 and Fukuda-Parr 2003.

[44]UNDP 2004, p. 139.

[45]For a list of all national and regional reports, see http://hdr.undp.org/reports/ (accessed 23 August 2005).

development scholars have also used the capability approach and the related human development approach to discuss general development strategies and achievements. For example, Drèze and Sen have extensively analyzed India's development using the capability framework, and Ranis, Stewart and Ramirez have analyzed the causal relationships between economic growth and human development.[46]

ii. Assessing Small-scale Development Projects

Alkire developed a capability analysis as an alternative for standard cost-benefit analyses of three poverty reduction projects in Pakistan: goat rearing, female literacy classes, and rose garland production. She assessed these projects in terms of how capability-enhancing they were, and compared her evaluations with standard monetary evaluations. The goat rearing activity is a sound economic investment, although the internal rate of return depends substantially on the choice of women's shadow wages. In addition, there were a number of largely non-quantifiable effects, like the acquisition of useful knowledge and the cultivation of friendships. Whereas for the goat rearing project the evaluation of the economic and intangible social effects go in the same direction, the female literacy project is a prime example of a project that would no longer be funded if it were evaluated *only* on a traditional cost-benefit basis. Because markets for female employment are effectively missing in the area of the literacy project, it had hardly any effect on women's earnings. However, according to Alkire "it had a fundamental and transformative impact on the women students,"[47] which a purely economic analysis that only takes the quantifiable dimensions into account would miss. As well as learning to read, the women learned that women are equal to men and that they do not need to suffer abuse. Through literacy the women were able to solve their own problems. They also experienced great satisfaction at being able to study. A similar relation between a negative internal rate of return on the one hand, and a number of important non-economic benefits on the other, holds for the rose cultivation project. In pure economic terms, a comparison of these three projects would clearly conclude that the goat-rearing project is superior to the other projects. However, the literacy classes had the strongest impact on knowledge and empowerment. Thus, from a capability perspective no project is clearly better than the others. As a consequence, "the choice cannot be made on technical grounds but rather is a morally significant choice."[48] The capabilities evaluation is less precise, because it includes those dimensions that are very hard to quantify. Nevertheless these effects are important and including them in the analysis can lead to different judgments from those drawn in standard economic evaluations.

[46]Drèze and Sen 2002; Ranis, Stewart and Ramirez 2000.
[47]Alkire 2002, p. 256.
[48]Alkire 2002, p. 286.

iii. Identifying the Poor in Developing Countries

Several quantitative empirical studies have investigated, both in micro and macro settings, how many functionings-poor people there are, and whether they are the same people identified by an income-poverty measure. The majority of these poverty studies use household surveys, and focus on one country only. Caterina Ruggeri Laderchi used 1992 Chilean data to investigate the extent to which an income-based measure is able to capture some basic functionings that are relevant for poverty analysis: education, health and child nutrition. She found that the income variable *in itself* appears insignificant as a determinant of shortfall in health, schooling and child nutrition, and that the role that income has to play in functionings-poverty is highly non-linear and depends on a number of other personal, household and regional characteristics.[49] She also analyzed 1994 data from Peru, and found that not all functionings-poor are income poor, and vice versa. For example, 21% of the stunted children, 20% of the children aged 12–15 who did not have 4 years of schooling, and 47% of the sick people, belong to households that are not considered income-poor. These results confirm that monetary poverty does not reveal all dimensions of deprivation.[50] In another study, Ruggeri Laderchi, Saith and Stewart compared the theoretical assumptions of four approaches to poverty measurement: the monetary, capability, social exclusion and participatory approaches. While the monetary approach "gives the false impression of being the most accurate and objective of the methods," they argue that each approach involves numerous judgements, which are often not transparent.[51] Empirical work in Peru and India shows that there is a significant lack of overlap between the people identified as poor by these four approaches. The divergence between the approaches has consequences for the choice of poverty reduction strategies. Stephan Klasen used the 1994 South African SALDRU household survey to analyze the profile of the functionings-poor and to compare the identification of the functionings-poor with the expenditure-poor.[52] Klasen's selection of functionings included education, income, wealth, housing, water, sanitation, energy, employment, transport, financial services, nutrition, health care, safety and perceived well-being – and thus contains a mixture of functionings and resources. He found that members of some groups (Africans, rural dwellers, female headed households and smaller households) are much more functionings-deprived than the expenditure measure might indicate. Seventeen percent of the people who are identified as functionings-deprived are not identified as poor by the expenditure measure. In another study, Mozaffar Qizilbash used seven indicators from the 1996 South African Census—household expenditure, educational attainment, water source, frequency and type of refuse removal, energy sources used for cooking, the number of rooms in the household

[49]Ruggeri Laderchi 1997.
[50]Ruggeri Laderchi 1999.
[51]Ruggeri Laderchi, Saith and Stewart 2003, p. 268.
[52]Klasen 2000.

and employment—to investigate the extent to which the conceptualization of poverty makes a difference to our understanding of the relative prevalence of poverty in South African provinces.[53] Combining an analysis based on descriptive statistics and fuzzy sets theory, Qizilbash finds that the household expenditure poverty estimates give a very different picture from an analysis based on the other indicators. For example, the province Free State has the highest incidence of expenditure poverty, but never appears in the bottom three when provinces are ranked according to the human poverty indicators. This has important policy implications, since the government allocates funds to municipalities based on estimates of the number of poor households according to household income, which is highly positively correlated with expenditure but not with other indicators of capabilities and human development.

Apart from these micro-data based studies, the capability approach could also be used to estimate the number of poor in the world. The most well-known global poverty estimates are the so-called "one dollar a day" and "two dollars a day" poverty measures of the World Bank. However, Thomas Pogge and Sanjay Reddy have strongly criticized these monetary estimates for being arbitrary and have suggested that global poverty estimates should be based on aspects of the poor that matter intrinsically, such as their capabilities.[54] Muhammed Asali, Sanjay Reddy and Sujata Visari have recently started to investigate how such capability-based global poverty estimates could be generated.[55] In their pilot study, they calculated the number of poor in Nicaragua, Tanzania and Vietnam using the World Bank's "one dollar a day" and "two dollars a day" poverty-lines, and compared these with a poverty line based on the minimal cost to achieve a set of income-dependent elementary capabilities. As a first step towards a full operationalization of this method, they defined these capabilities as the local cost of minimal requirements of calorie-intake, plus an allowance for non-calorie needs which are identified using information on the ratio of non-food to food-expenditure. Asali, Reddy and Visari find that for Tanzania and Nicaragua capability-based estimates of the number of people living in poverty is lower than monetary-based estimates, while for Vietnam they are considerably higher than monetary-based estimates. They conclude that national poverty estimates and the ranking of countries differ depending on which poverty concept one uses. Choice of poverty concept can also make a difference to the level and trends of the global poverty estimates. However, in order to draw any firm conclusions, better data would need to be collected, which would require an internationally coordinated effort in the production of statistics.

[53]Qizilbash 2002.
[54]See Reddy and Pogge (forthcoming).
[55]Asali, Reddy and Visari 2005.

iv. Poverty and Well-being Assessment in Advanced Economies

Applied capability studies are not restricted to developing countries. Several studies have investigated the number and demographic profile of the poor in advanced economies, or have assessed well-being trends. Alessandro Balestrino analyzed whether a sample of officially poor people are functionings-poor (that is, education, nutrition or health failure), income poor, or both. Out of the 281 Italian households in his sample, 73 households are only functionings-poor, 71 are only income poor, and 137 are both. The analysis suggests that a sizeable share of the poor in affluent societies are actually not income poor. A policy conclusion which can be drawn from this study is that for those who are functionings-poor but not income poor, in-kind transfers would be more effective to fight poverty than cash transfers.[56] Shelley Phipps made a comparison of the well-being of children aged 0–11 in Canada, Norway and the USA, using equivalent household incomes and ten functionings (low birth weight, asthma, accidents, activity limitation, trouble concentrating, disobedience at school, bullying, anxiety, lying, hyperactivity). Her study had two main findings. First, the Canadian and American distributions of functionings can not be ranked, but of the children belonging to households with incomes in the bottom quintile, the Canadian children are better off than the American children. Second, while average incomes are similar in the three countries, Norwegian children are better off in terms of the 10 functionings than Canadian children.[57] Andrea Brandolini and Giovanni D'Alessio analyzed the 1993 Bank of Italy's Survey of Household Income and Wealth, which includes information on health, education, employment, housing and social relationships. Their study showed that even "simple" descriptive statistics give us insights about which demographic groups are deprived in specific dimensions.[58] Enrica Chiappero-Martinetti used the 1994 Italian household survey to measure well-being in Italy. Her study measured 5 functionings (health, education, knowledge, social interaction and psychological conditions), at three levels of aggregation. Women, the elderly (especially if they live alone), people living in the South of Italy, housewives and blue-collar workers have lower functionings achievements, no matter how the overall well-being has been determined. Chiappero-Martinetti's study also shows that aggregation is not necessary to answer many of the questions that one might like to address.[59] In 2001, Paul Anand and Martin van Hees conducted in England a survey on *satisfaction* with capabilities and self-reported functioning outcomes.[60] The dimensions that they selected are happiness, health, intellectual stimulation, social relations, being in pleasant environments, and personal integrity. Anand and van Hees also tried to measure people's assessment with their entire

[56]Balestrino 1996.
[57]Phipps 2002.
[58]Brandolini and D'Alessio 1998.
[59]Chiappero-Martinetti 2000.
[60]Anand and van Hees 2006.

capability set, by asking how respondents judged their options taking all things together. Apart from presenting descriptive statistics, they also report regression results analyzing how capability satisfaction is related to some standard socio-economic variables, and how perceptions of others' capabilities are related to capability satisfaction.

v. Deprivation of Disabled People

Disabled people suffer from at least two types of material disadvantages: they earn less income than the non-disabled, and because of their special needs they need more income to achieve similar functionings, for example to buy a wheelchair. The first disadvantage would be captured by any standard monetary income comparison, but the second would not. Asghar Zaidi and Tania Burchardt make use of standard techniques in welfare economics to account for the fact that the disabled are disadvantaged in converting income into material well-being.[61] When these extra costs of disability are taken into account, the estimates of the standard of living of the disabled lower significantly, and the incidence of the disabled among the people in the bottom quintile of the income distribution rises drastically (from 25 to 40%). Thus, Zaidi and Burchardt confirm Sen's claim that the disabled need more income to reach the same levels of material well-being, and also show how one can start from standard economic measurement practice and move in the direction of the capability approach. Wiebke Kuklys's study confirms the findings by Zaidi and Burchardt, estimating that a British disabled individual needs 44% more income to achieve the same level of material welfare compared with a non-disabled individual, all other things being equal.[62] She also calculated how taking this extra cost of disability into account would affect the poverty rates of the disabled. Again, the effects are striking: using data for 1996, the percentage of disabled people living in poverty increases from 8.45% to 27.11% if poverty is defined as having an income below 40% of the median income, and increases from 22.99 to 54.66% if the poverty line is put at 60% of the median income.[63] The studies by Kuklys and by Zaidi and Burchardt only focus on functionings deprivation in terms of material well-being; a full assessment of the functionings well-being of the disabled might also reveal other considerable deprivations (for example, in leisure activities or social interactions). These studies are probably best understood as *partial* capability applications, focusing on only one dimension of human diversity, and one group of functionings.

[61]Zaidi and Burchardt 2005.
[62]Kuklys 2005, p. 96.
[63]Kuklys 2005, p. 98.

vi. Assessing Gender Inequalities

In his first set of empirical illustrations of how he envisioned the capability approach in practice, Sen examined gender discrimination in India.[64] He found that females have worse achievements than males for a number of functionings, including age-specific mortality rates, malnutrition and morbidity. In later work, he calculated that if female fetuses and daughters were treated like male fetuses and sons, there would be an additional 100 million women in the world. The techniques to estimate these numbers have subsequently been refined by other economists, and some regional changes have been noted over time. The most recent calculations do not allow us to conclude that there has been overall progress on this front (in part due to the wider availability of technologies to determine the sex of fetuses).[65] While this literature on "missing women" only focuses on one particular capability – the capability of living – its findings are of extreme significance. The capability approach has also been used to assess gender inequality in advanced economies. Enrica Chiappero-Martinetti used a 1994 household survey conducted by the Italian Statistical Office to examine the nature and extent of gender inequality in Italy.[66] Her analysis focused on five functionings: housing, health, social interactions, education and knowledge, and psychological well-being. She found that, with the exceptions of housing, and education for the younger generations, women have a lower achieved well-being than men; in addition, there are significant differences in functioning-levels across regions, occupational status, age, and type of family. I have conducted another study of gender inequality in Europe. For this I derived a theoretical list of capabilities relevant for the assessment of gender inequality in affluent societies, following the criteria outlined in Part I. This list includes life and physical health, mental well-being, bodily integrity and safety, social relations, political empowerment, education and knowledge, domestic work and nonmarket work, paid work, shelter and environment, mobility, leisure activities, time-autonomy, respect and religion.[67] A descriptive analysis based on the BHPS showed that women are worse off than men in terms of physical health, mental health, perceived bodily safety, education (though this holds mainly for older generations), and leisure activities. For social interactions and support, men are slightly worse off than women. But, not surprisingly, some of the biggest gender gaps are in paid work (men doing much more than women), and domestic work and care (women doing much more than men). However, one needs a normative theory of the gender division of labour in order to interpret the normative significance of these results for the assessment of gender inequality.[68] A survey of

[64]Sen 1985, pp. 52–69.
[65]Sen 1992b, 2003 and Klasen and Wink 2003.
[66]Chiappero-Martinetti 2003.
[67]Robeyns 2003, pp. 70–76.
[68]Robeyns 2006.

other empirical studies on gender inequalities added that women are worse off in terms of time autonomy and political empowerment, whereas for shelter no significant inequalities were found.[69]

vii. Debating Policies

The capability approach has also been used to discuss and empirically assess policies, such as educational policies or the principles for welfare state reform. Erik Schokkaert and Luc Van Ootegem showed that compensating the Belgian unemployed for their income-loss does not help in alleviating all their functionings deprivations (such as social well-being, psychological well-being, physical functionings, and micro-social contact). They conclude that welfare policies for the unemployed should not be restricted to financial instruments only, but that non-financial instruments may be needed to support the functionings well-being of the unemployed.[70] Jane Lewis and Susanna Giullari have argued that the capability approach can be helpful in providing us with principles for the development of welfare state policies that allow citizens to hold jobs *and* provide care. They see the capability approach as a useful theoretical framework, as it stresses the real freedoms that are open to caring workers, rather than trying to steer citizens into one particular mode of functioning. Moreover, by being strongly multidimensional, the capability approach stresses that both working and caring can be part of a full human life, and that therefore employment policies should consider how they affect caring arrangements, and vice versa.[71] Hartley Dean and his colleagues have argued that the European Employment Strategy is not aiming at expanding people's capabilities, but rather at improving people's human capital. They suggest that welfare state and social policies be assessed against the normative standards of rights and capabilities, which will lead to different analyses from the standard welfare states typologies.[72] The capability approach is also increasingly used to rethink and develop educational policies. For example, Lorella Terzi has argued that the capability approach can provide a way out of the "dilemma of difference" in special needs education.[73]

viii. Critiquing and Assessing Social Norms, Practices and Discourses

Some scholars have used the capability approach to critique social norms, practices and discourses. For example, a social norm may induce certain behaviour that restricts people's capability sets or privileges some group's

[69]Robeyns 2003.
[70]Schokkaert and Van Ootegem 1990.
[71]Lewis and Giullari 2005.
[72]Dean et al. 2005.
[73]Terzi 2005. The "dilemma of difference" holds that there is an unavoidable choice between, on the one hand, identifying children's differences in order to provide different education for them, which runs the risk of dividing children, and on the other hand, stressing the sameness of children by offering common provisions, which increases the risk of not meeting the needs of children with special needs. For other studies on education, see Unterhalter (2003, 2005), and Walker (2005, 2006).

capabilities at the expense of other groups. Or certain claims made in public discourse may be criticized if one broadens the informational basis, or if one shifts the focus from purely material resources to a broad range of capabilities. Mika LaVaque-Manty has used the capability framework to argue that eating disorders in affluent societies are an issue of political justice. At first, this claim may seem implausible, since affluent persons who are choosing not to eat can be seen as having the capability to be well-fed, but as choosing not to achieve this function. However, as LaVaque-Manty argues, if we notice systematic occurrences in the pattern of people who do not have the functioning while they are thought to have the capability (which is the case for eating disorders since they are overwhelmingly a problem of young women), and if we can provide a convincing causal explanation for this systematic group difference between capabilities and functioning outcomes (which LaVaque-Manty provides by focusing on the gendered social norms that generate this behaviour), then we have a plausible story to understand why eating disorders are a problem of political justice.[74] Kevin Olson has drawn on the capability approach to criticize the gender norms that influence women's and men's choices between labour and care, and thus affect their well-being outcomes. He argues that recognizing such norms requires feminist welfare state theorists to argue not only for particular institutional changes, but also for a change in cultural agency which is needed to challenge and resist those norms.[75] In a recent article I questioned whether some success-stories of economic globalisation remain positive if one looks beyond increases in personal incomes and GNP per capita, and instead takes social and psychological functionings into account. In countries such as the Philippines, a significant and increasing share of income is generated by women working as domestic workers in rich countries. On the traditional welfare and development metrics, this is a clear success. But there is increasing evidence of the damage that this economic migration does to both the immigrant care worker and the children she leaves behind, in terms of their social relations and mental health. A functionings-evaluation of these migration flows is therefore not as unambiguously positive as the purely monetary assessments.[76]

ix. Functionings and Capabilities as Concepts in Non-normative Research

Finally, the concepts of functionings and capabilities can also be used in a non-normative setting, for example in ethnographic research, or as concepts in explanatory analysis. Mary Arends-Kuenning and Sajeda Amin investigated whether rural Bangladeshis perceive of girls' and women's education as human capital, or more broadly as capabilities. Based on in-depth interviews, they found that education is primarily seen as human capital for the marriage and labour markets, although a few interviewees did speak of it in terms of its direct

[74]LaVaque-Manty 2001.
[75]Olson 2002.
[76]Robeyns 2005a.

contribution to well-being and agency.[77] Paul Anand, Graham Hunter and Ron Smith examined the extent to which the BHPS covers the capabilities on Nussbaum's list. In addition, they analyzed these functionings and capabilities as determinants of subjective well-being, and found that many of them are significantly related to subjective well-being, even when controlled for personality traits.[78] So far, only a small number of applications are engaging in non-evaluative research, and future research should further explore the limits and possibilities of this kind of research.

In addition to these nine different types of capability applications, there are also a very large number of studies that look at one specific capability, such as education or health or nutrition. These studies often challenge a more narrow economic efficiency-rational by pointing at the (unintended) side effects of particular policies on people's capabilities. For example, conceptualizing education as an investment in human capital has different policy consequences than understanding education as a tool to expand people's capabilities. The kind of education that a capability perspective would recommend may be different (not only education that maximizes one's chances on the labour market, but also education that empowers a pupil or student in all dimensions of life), and an economic rationale for excluding certain groups from education may be undermined (for example, even if women are excluded from the labour market, they may nevertheless gain considerable capability-enhancement from education, as Alkire's study showed).

C. Concerns, Challenges and Unresolved Problems

By way of concluding, I want to offer a few remarks.

Firstly, it has sometimes been asked whether the capability approach is reinventing the wheel. Is the capability approach not simply doing what the non-economic social sciences, especially sociology, have been doing for many years? At the policy level, the resemblance of capability-based quality of life measurement in welfare states to the Swedish approach to welfare or the Dutch index of living conditions, which have been around for more than three decades, are striking.[79] At the measurement level, there are similarities with well-being and agency measures that have already been developed in other literatures, such as the subjective quantitative measures of human agency.[80] In addition, when using a given dataset, empirical estimates of well-being using the capability approach may well be very similar to estimates using other conceptualisations of multi-

[77]Arends-Kuenning and Amin 2001.
[78]Anand, Hunter and Smith 2005.
[79]For the Swedish approach to welfare, see Erikson (1993); for the Dutch index of living conditions, see Boelhouwer (2002).
[80]Alkire 2005.

dimensional well-being.[81] This inevitably raises the question, what, if anything, is innovative about the capability approach? To my mind, there are several answers to this question. When seen from the perspective of contemporary mainstream economics, the capability approach is introducing "a sociological turn" in economics. But in contrast to many sociological studies that describe or analyze well-being using a multidimensional framework, the capability approach offers the underpinnings of a multidimensional empirical analysis, and stresses to a far greater extent the need to integrate theory and practice, and to pay due attention to the philosophical foundations. Second, the contemporary structure of academic research induces us to think in terms of disciplines, which makes us prone to interpret the capability approach as an alternative *economic* approach, since Sen is primarily regarded as an economist. However, the capability approach is extremely interdisciplinary, perhaps even post-disciplinary. In general, scholars using advanced quantitative techniques and scholars using ethnographic methods tend not to communicate. By having a common theoretical framework that allows for a range of applications, including standard quantitative ones and standard qualitative ones, the capability approach opens up a truly interdisciplinary space in the study of well-being, inequality, justice and public policies. Thus, while a particular empirical application may in itself not sound very innovative, its broader theoretical and post-disciplinary embedding put it in a different light.

Secondly, none of the measurement exercises are based on data which were specifically collected to measure functionings or capabilities; we are, thus, still working with second-best surveys and the current applications are likely to be limited by possible construction biases in the available data.[82] One could therefore argue that it might still be somewhat premature to assess the difference that the capability approach can make in practice, since we do not know what additional differences may be found using data that are specifically collected with the capability approach as the theoretical basis of the survey design.

Thirdly, since the capability approach is radically underspecified and every application requires additional specifications, there are always a number of different ways in which a particular question can be answered using the capability approach. As a consequence, some applications of the capability approach will answer the same question differently than other capability applications, and some of these will deliver results that are much closer to traditional economic empirical applications. Similarly, two functionings measurements which use different selections of relevant functionings, or different weights, may result in different assessments. It is therefore crucial that each

[81]Ramos and Silber 2005.

[82]The survey conducted by Anand and van Hees (2006) is in this respect the most innovative survey, though it measures satisfaction with perceived capabilities, rather than capabilities itself.

application of the capability approach explicitly justifies its specifications (selection of capabilities, weights, and so on) and tries, as much as possible, to analyze and discuss the extent to which these specifications affect the results.

Fourthly, one should not conclude from this survey that we can drop monetary assessments altogether. For a start, there are many ways in which the current monetary assessments could be improved, for example, as argued by Pogge and Reddy, in the context of global poverty measurement.[83] There are many contexts in which *both* functionings and capabilities *and* income can be relevant. The claim of the capability approach is not that one should do away with the established monetary indicators and statistics, but rather that for several questions they offer only a partial view of the subject matter, and that for some questions they are misleading. While in many philosophical debates, especially in the literature on equality and distributive justice, an *exclusive* choice is expected between the capability metric and other metrics, such a choice is not always needed and often not even desirable when the capability approach is put into practice.

Fifthly, the capability approach in practice will often require the supplementation of additional social theories, and the choice of these theories can lead to quite divergent assessments. For example, social scientists and philosophers have widely divergent views on the nature and incidence of power. Power can be an important factor in assessing people's capabilities, especially in micro-contexts, such as households. Many capabilities are interdependent at the household level, that is, there are opportunities that are open to all, but not everyone can realize them at the same time. For example, if a man and a woman have children who need a minimum amount of care by the parents, then it is possible for each of the parents to hold jobs that are incompatible with providing this care (on the condition that the other parent provides the care), but it is impossible for *both* parents to do so simultaneously. If one thinks of gender as being a structure of power, one will have very different assessments of these people's capabilities than if one endorses a libertarian view of gender. In addition, a focus on capabilities as the normative goal, for example in the formulation of policies, presumes that people can all be held equally accountable for the choices that they make, which implies that every person is assumed to be equally able to make choices. Both the philosophical debate on free will versus determinism, and the sociological debate about the structural nature of the social determinants of choice (such as class and gender), indicate that there is much to say about the social influences on individual choice. For some applications of the capability approach, this will be an important issue. In such applications, the capability approach in practice will need to be supplemented with social theories.

[83]Reddy and Pogge (forthcoming).

Finally, the above survey has mainly shown what the capability approach *can* do, and what difference the capability approach makes in practice. While the capability literature tends to point out especially what the approach has to offer in comparison with other informational approaches, there are still many issues that plague the approach as much as they plague other informational metrics. One of these problems is the role of preferences in the capability approach. Most versions of the capability approach advocate for people being involved in determining which capabilities are relevant, and how to weight them. But this opens a can of worms that are well-known to social choice theorists and theorists of deliberative democracy, such as the tyranny of the majority. Other problems are equally unsolved (such as the well-known problems of cheap and expensive tastes), in so far as some functionings, such as enjoying social status or psychological well-being, might be preference-dependent. An upper class man might "need" an expensive car in order to earn respect from his peers, while an environmentalist needs only a bike. Similarly, in order to achieve the functioning of not having to be ashamed at work by one's attire, business consultants are likely to require more expensive clothes than academics or social workers. Thus, it seems that the capability approach can handle the expensive tastes problem only when the expensive taste cannot be justified by environment-dependent functionings, but the difficult question remains of how far expensive tastes can be justified and should be respected when they impinge upon functionings and capabilities.

What do we conclude from this survey? Putting the capability approach into practice is not a straightforward exercise, since the capability approach is radically underspecified. I have argued that the underspecified nature of the capability approach requires that at least three theoretical specifications need to be made: the choice of whether to focus on functionings, capabilities or both; the selection of the relevant capabilities; and the decision whether or not trade-offs and indexing are necessary, and if so how to determine the weights. The capability applications surveyed in this article indicated that current applications of the capability approach arrive at different measurement results and evaluations than the standard approaches that focus on income-based metrics. In addition, the theoretical framework also offers different foundations for policy proposals, and can be a helpful component in the critique of social norms, practices and arrangements. However, the final set of comments and remarks indicate that caution is needed: the capability approach still struggles with some problems that other evaluative frameworks face, and should not be seen as a framework that is superior to other frameworks in each and every application. Instead, its relative usefulness often depends on the kind of question being addressed. Moreover, capability applications should in many cases not be seen as supplanting other approaches, but instead as providing complementary insights to the more established approaches.

REFERENCES

Alkire, Sabina. 2002. *Valuing Freedoms: Sen's Capability Approach and Poverty Reduction*. New York: Oxford University Press.
Alkire, Sabina. 2005. Subjective quantitative studies of human agency. *Social Indicators Research*, 74, 217–60.
Anand, Paul, Graham Hunter and Ron Smith. 2005. Capabilities and well-being: evidence based on the Sen-Nussbaum approach to welfare. *Social Indicators Research*, 74, 9–55.
Anand, Paul and Martin van Hees. 2006. Capabilities and achievements: an empirical study. *The Journal of Socio-Economics*, 35, 268–84.
Anderson, Elizabeth. 1999. What is the point of equality? *Ethics*, 109, 287–337.
Arends-Kuenning, Mary and Sajeda Amin. 2001. Women's capabilities and the right to education in Bangladesh. *International Journal of Politics, Culture and Society*, 15, 125–42.
Asali Muhammed, Sanjay Reddy and Sujata Visaria. 2005. Intercountry comparisons of poverty based on a capability approach: a pilot study. Unpublished paper. New York: Columbia University.
Balestrino, Alessandro. 1996. A note on functionings-poverty in affluent societies. *Notizie di Politeia*, 12, 97–105.
Barclay, Linda. 2003. What kind of liberal is Martha Nussbaum? *SATS: Nordic Journal of Philosophy*, 4, 5–24.
Basu, Kaushik. 1987. Achievements, capabilities and the concept of well-being. *Social Choice and Welfare*, 4, 69–76.
Basu, Kaushik and Luis Lopez-Calva. Forthcoming. Functionings and capabilities. In Kenneth Arrow, Amartya Sen and Kotaro Suzumura (eds), *Handbook of Social Choice and Welfare, Volume 2*. North Holland: Elsevier Science.
Biggeri, Mario, Renato Libanora, Stefano Mariani and Leonardo Menchini. 2006. Children conceptualizing their capabilities: results of a survey conducted during the first children's world congress on child labour. *Journal of Human Development*, 7, 59–83.
Boelhouwer, Jeroen. 2002. Quality of life and living conditions in the Netherlands. *Social Indicators Research*, 58, 115–40.
Brandolini, Andrea and Giovanni D'Alessio. 1998. Measuring well-being in the functioning space. Unpublished paper. Rome: Banca d'Italia.
Brighouse, Harry. 2004. *Justice*. Cambridge: Polity Press.
Bundesministerium für Gesundheit und Soziale Sicherung. 2005. *Lebenslagen in Deutschland: Der Zweite Armuts- und Reichtumsbericht*. Berlin: Bundesanzeiger.
Chakraborty, Achin. 1996. On the possibility of a weighting system for functionings. *Indian Economic Review*, 31, 241–50.
Chiappero-Martinetti, Enrica. 2000. A multi-dimensional assessment of well-being based on Sen's functioning theory. *Revista Internazionale di Scienza Soziali*, 58, 207–39.
Chiappero-Martinetti, Enrica. 2003. Unpaid work and household well-being. In Antonella Picchio (ed.), *Unpaid Work and the Economy: A Gender Analysis of the Standards of Living*. London: Routledge.
Dean, Hartley, Jean-Michel Bonvin, Pascale Vielle and Nicolas Farvaque. 2005. Developing capabilities and rights in welfare-to-work policies. *European Societies*, 7, 3–26.
Drèze, Jean and Amartya Sen. 2002. *India: Development and Participation*. Oxford: Oxford University Press.
Erikson, Robert. 1993. Descriptions of inequality: the Swedish approach to welfare research. Pp. 67–87 in Martha Nussbaum and Amartya Sen (eds), *The Quality of Life*. Oxford: Clarendon Press.
Fleurbaey, Marc. 2002. Development, capabilities, and freedom. *Studies in Comparative International Development*, 37, 71–7.
Fukuda-Parr, Sakiko. 2003. The human development paradigm: operationalizing Sen's ideas on capabilities. *Feminist Economics*, 9, 301–317.
Gasper, Des. 2004. *The Ethics of Development*. Edinburgh: Edinburgh University Press.

Klasen, Stephan. 2000. Measuring poverty and deprivation in South-Africa. *Review of Income and Wealth*, 46, 33–58.
Klasen, Stephan and Claudia Wink. 2003. "Missing women": revisiting the debate. *Feminist Economics*, 9, 263–99.
Kuklys, Wiebke. 2005. *Amartya Sen's Capability Approach: Theoretical Insights and Empirical Applications*. Berlin: Springer Verlag.
Kuklys, Wiebke and Ingrid Robeyns. 2005. Sen's capability approach to welfare economics. Pp. 9–30 in Wiebke Kuklys (ed.), *Amartya Sen's Capability Approach: Theoretical Insights and Empirical Applications*. Berlin: Springer Verlag.
LaVaque-Manty, Mika. 2001. Food, functionings and justice: from famines to eating disorders. *The Journal of Political Philosophy*, 9, 150–167.
Lewis, Jane and Susanna Giullari. 2005. The adult worker model family, gender equality and care: the search for new policy principles and the possibilities and problems of a capabilities approach. *Economy and Society*, 34, 76–104.
Menon, Nivedita. 2002. Universalism without foundations? *Economy and Society*, 31, 152–69.
Nussbaum, Martha. 2000. *Women and Human Development: The Capabilities Approach*. Cambridge: Cambridge University Press.
Nussbaum, Martha. 2003. Capabilities as fundamental entitlements: Sen and social justice. *Feminist Economics*, 9, 33–59.
Nussbaum, Martha. 2006. *Frontiers of Justice: Disability, Nationality, Species Membership*. Cambridge, Mass.: Harvard University Press.
Olson, Kevin. 2002. Recognizing gender, redistributing labor. *Social Politics*, 9, 380–410.
Phillips, Anne. 2004. Defending equality of outcome. *The Journal of Political Philosophy*, 12, 1–19.
Phipps, Shelley. 2002. The well-being of young Canadian children in international perspective: a functionings approach. *Review of Income and Wealth*, 48, 493–515.
Pogge, Thomas. 2002. Can the capability approach be justified? *Philosophical Topics*, 30, 167–228.
Qizilbash, Mozaffar. 2002. A note on the measurement of poverty and vulnerability in the South African context. *Journal of International Development*, 14, 757–72.
Qizilbash, Mozaffar and David Clark. 2005. The capability approach and fuzzy poverty measures: an application to the South African context. *Social Indicators Research*, 74, 103–39.
Ramos, Xavier and Jacques Silber. 2005. On the application of efficiency analysis to the study of the dimensions of human development. *Review of Income and Wealth*, 51, 285–309.
Ranis, Gustav, Frances Stewart and Alejandro Ramirez. 2000. Economic growth and human development. *World Development*, 28, 197–219.
Rawls, John. 1999. *The Law of Peoples*. Cambridge, Mass.: Harvard University Press.
Reddy, Sanjay and Thomas Pogge. Forthcoming. How *not* to count the poor. In Sudhir Anand and Joseph Stiglitz (eds), *Measuring Global Poverty*. Oxford: Oxford University Press.
Robeyns, Ingrid. 2003. Sen's capability approach and gender inequality: selecting relevant capabilities. *Feminist Economics*, 9, 61–92.
Robeyns, Ingrid. 2005a. Assessing global poverty and inequality: income, resources, and capabilities. *Metaphilosophy*, 36, 30–49.
Robeyns, Ingrid. 2005b. The capability approach: a theoretical survey. *Journal of Human Development*, 6, 93–114.
Robeyns, Ingrid. 2005c. Selecting capabilities for quality of life measurement. *Social Indicators Research*, 74, 191–215.
Robeyns, Ingrid. 2006. Measuring gender inequality in functionings and capabilities: findings from the British Household Panel Survey. Pp. 236–77 in P. Bharati and M. Pal (eds), *Gender Disparity: Manifestations, Causes and Implications*. New Delhi: Anmol Publishers.

Ruggeri Laderchi, Caterina. 1997. Poverty and its many dimensions: the role of income as an indicator. *Oxford Development Studies*, 25, 345–60.
Ruggeri Laderchi, Caterina. 1999. The many dimensions of deprivation in Peru. *Queen Elizabeth House Working Paper Series*, 29.
Ruggeri Laderchi, Caterina, Ruhi Saith, and Frances Stewart. 2003. Does it matter that we do not agree on the definition of poverty? A comparison of four approaches. *Oxford Development Studies*, 31, 243–74.
Salais, Robert and Robert Villeneuve, eds. 2004. *Europe and the Politics of Capabilities*. Cambridge: Cambridge University Press.
Schokkaert, Erik and Luc Van Ootegem. 1990. Sen's concept of the living standard applied to the Belgian unemployed. *Recherches Economiques de Louvain*, 56, 429–450.
Sen, Amartya. 1980. Equality of what? In S. McMurrin (ed.), *The Tanner Lectures on Human Values*. Salt Lake City: University of Utah Press.
Sen, Amartya. 1985. *Commodities and Capabilities*. Amsterdam: North Holland.
Sen, Amartya. 1987. The standard of living. In G. Hawthorn (ed.), *The Standard of Living*. Cambridge: Cambridge University Press.
Sen, Amartya. 1992a. *Inequality Re-examined*. Oxford: Clarendon Press.
Sen, Amartya. 1992b. Missing women. *British Medical Journal*, 304, 586–87.
Sen, Amartya. 1993. Capability and well-being. In Martha Nussbaum and Amartya Sen (eds), *The Quality of Life*. Oxford: Clarendon Press.
Sen, Amartya. 1999. *Development as Freedom*. New York: Knopf.
Sen, Amartya. 2003. Missing women—revisited. *British Medical Journal*, 327, 1297–8.
Sen, Amartya. 2004. Capabilities, lists, and public reason: continuing the conversation. *Feminist Economics*, 10, 77–80.
Sen, Amartya. 2005. Preface. In Wiebke Kuklys (ed.), *Amartya Sen's Capability Approach: Theoretical Insights and Empirical Applications*. Berlin: Springer Verlag.
Stewart, Frances. 1995. Basic needs, capabilities, and human development. *Greek Economic Review*, 17, 83–96.
Stewart, Frances. 2001. Book review of *Women and Human Development* by Martha Nussbaum. *Journal of International Development*, 13, 1189–202.
Sugden, Robert. 1993. Welfare, resources, and capabilities: a review of *Inequality Reexamined* by Amartya Sen. *Journal of Economic Literature*, 31, 1947–1962.
Terzi, Lorella. 2005. Beyond the dilemma of difference: the capability approach to disability and special educational needs. *Journal of Philosophy of Education*, 39, 443–59.
UNDP. 1990–2005. *Human Development Report*. Oxford: Oxford University Press.
Unterhalter, Elaine. 2003. Crossing disciplinary boundaries: the potential of Sen's capability approach for sociologists of education. *British Journal of Sociology of Education*, 24, 665–69.
Unterhalter, Elaine. 2005. Global inequality, capabilities, social justice: the millennium development goal for gender equality in education. *International Journal of Educational Development*, 25, 111–22.
Vallentyne, Peter. 2005. Debate: capabilities versus opportunities for well-being. *The Journal of Political Philosophy*, 13, 359–71.
Volkert, Jürgen, ed. 2005. *Armut und Reichtum an Verwirklichungschancen. Amartya Sens Capability-Konzept als Grundlage der Armuts- und Reichtumsberichterstattung*. Wiesbaden: VS Verlag für Sozialwissenschaften.
Walker, Melanie. 2005. *Higher Education Pedagogies: A Capabilities Approach*. Maidenhead: Open University Press.
Walker, Melanie. 2006. Towards a capability-based theory of social justice for education policy-making. *Journal of Education Policy*, 21, 163–85.
Wolff, Jonathan and Avner de-Shalit. Forthcoming. *Disadvantage*. Oxford: Oxford University Press.
Zaidi, Asghar and Tania Burchardt. 2005. Comparing incomes when needs differ: equivalization for the extra cost of disability in the U.K. *Review of Income and Wealth*, 51, 89–114.