Operationalisation of the Capability Approach

Enrica Chiappero-Martinetti¹,
Valerie Egdell, Emma Hollywood and Ronald McQuaid²

1. Introduction

While the Capability Approach offers a rich, comprehensive and innovative way to measure well-being, its operationalisation is a demanding task. It starts by broadly discussing some central issues related to the operationalisation of the Capability Approach and providing an overview of how these have been addressed in the recent empirical literature. Applications of the Capability Approach in labour market and education research are then explored, discussing how methodological and empirical challenges have been tackled. The chapter then moves to present the methodological and empirical strategies used in the WorkAble project, highlighting how the issues of how to suitably capture and measure young people's capabilities were addressed, and outlining lessons learned that are relevant to those using the Capability Approach in the future.

2. Operationalising the Capability Approach

Since early seminal contributions in the mid-1980s, the Capability Approach has been widely recognised by its supporters as: one of the richest and most complete approaches to well-being analysis; a comprehensive and suitable framework for describing and investigating the multifaceted nature of individual well-being; and an innovative “way of thinking” able to embrace relevant aspects such as freedom or agency that are generally neglected or inadequately formulated in traditional approaches to well-being.

These strengths of the Capability Approach have been interpreted by some others in the reverse manner, casting doubts about the possibility of making effective use of this theoretical framework. Indeed, the complex, multidimensional and context-dependent nature of this approach, the lack of specificity as to how these dimensions should be selected and assessed, the absence of a rigorous formalisation, a definite metric, an algorithm or an index for measuring, ranking and comparing interpersonal conditions, can limit the practical application of this approach.

It is unquestionable, and largely acknowledged by capability scholars themselves, that the operationalisation of the Capability Approach is a demanding task, posing several conceptual, methodological and empirical challenges that are not easy to resolve. Nonetheless, despite its “underspecified” nature, this framework plays a central role in the current debate on individual and societal well-being, and despite the methodological

¹ University of Pavia and Institute for Advanced Study, Pavia.
² Employment Research Institute, Edinburgh Napier University.
³ Poverty is also seen by some as a lack of capabilities.
difficulties, a large and growing body of empirical studies based on the Capability Approach is available showing that measuring capabilities and functionings remains a challenging but feasible exercise.

The aim of the current section is to discuss some central issues related to the operationalisation of the Capability Approach and to provide a (non-exhaustive) overview of how these issues have been addressed in some consolidated contributions and in recent empirical literature.

Even if the scope and focal points are broad and largely heterogeneous, researchers interested in making empirical use of the Capability Approach have usually to address a series of choices and decisions with regard to: i) the evaluative space to be chosen (capability and/or functionings typically but also agency, autonomy or empowerment); ii) the number of dimensions, indicators and scales (quantitative or qualitative) to be measured; iii) the unit of analysis (individuals, households or subgroups of population) and the elements of heterogeneities that differentiate these units (typically, gender, ethnicity, age or any other relevant characteristics); and, finally, iv) the variety of socio-economic, geographic, institutional contexts that can affect the well-being process, the capability set and the achievement of functionings.

Most of these choices (that incidentally do not pertain exclusively to the Capability Approach but are common to every other multidimensional approach to well-being) are not merely technical or empirical but are primarily normative, since they characterise the core meaning of well-being that we want to describe and analyse. An element of distinction in this literature has been its capacity to endorse a broad and intensive debate at each single step. For instance, considerable discussion has focused on which capabilities should be considered, who should compile this list, whether or not there should be a scale of priority among them, and how should all of this be done. The positions range from: Sen’s view that it is inappropriate to make any a priori list, since the definition of what people value should be open to diverse conceptions of good, justice and advantage (Sen 2004, 2009); to that of Nussbaum, who argues forcefully in favour of a universal list of capabilities and formulates a specific list of ten human capabilities (Nussbaum 2000, 2003, 2011).

Other authors have contributed to this discussion: Robeyns (2003) identifies a procedure and a set of criteria for selecting dimensions and reaches a consensus on a list of capabilities or functionings; and Alkire (2007) matches some existing lists and compares the methods adopted in several studies for selecting these dimensions. Many authors argue that “the list of things people have reason to value” should reflect people’s values and priorities and therefore it should be effectively drawn from deliberative and participative processes (Crocker 2006, 2007, 2008).

---

5 For a review of the attempts to operationalise the Capability Approach and a comparison of different methods and techniques applied see: Chiappero-Martinetti and Roche (2009). See also Lessman (2012) on the empirical application of the Capability Approach in labour-related studies. An extensive and in-progress database on the empirical literature managed by the thematic group on quantitative methods is available on the Human Development and Capability Association website (www.capabilityapproach.org).
This debate, which is primarily philosophical and methodological, nevertheless affects empirical analysis: Nussbaum's list, or reduced versions narrowed down to a set of basic capabilities, has inspired several empirical papers (see, amongst others, Anand et al. 2005). Similarly, bottom-up participative procedures have been implemented to empirically derive a list of capabilities (see: Biggeri et al. 2006; Burchardt and Vizard 2011).

The question of whether capabilities or functionings can be measured has also been debated at length, swinging from those who argue that substantive freedoms and opportunities (i.e. capabilities) should (and potentially can) be considered and those who think that these are neither comprehensively observable nor measurable and hence only a person's attainments (i.e. functionings) can be assessed.

Looking at the empirical literature we can see that both evaluative spaces, i.e. capabilities and functionings, have been considered (even if the latter is more common than the former) and that in most cases this choice is preliminary based on the empirical strategy adopted by the researcher. In particular, secondary data, both micro-individual (e.g. household surveys) or macro-aggregated data (such as UN, OECD or EU indicators), are more frequently used as a proxy for measuring functionings (and less frequently for estimating capabilities as latent variables), while primary analysis is generally conducted for gathering capability-related information (Anand et al. 2005, 2009).

The type and nature of indicators and scales used, as well as the amount of human and contextual diversity accounted for, is also affected by the evaluative space selected, as well as by the empirical strategy chosen (i.e. secondary or primary analysis). There is a large prevalence in the use of quantitative, large-scale surveys and cross-sectional data when available datasets are used for measuring functionings (see, amongst others, Chiappero-Martinetti 2000; Klasen 2000; Lelli 2001; Kuklys 2005; Roche 2008), while qualitative analysis conducted by interviews, focus groups and participatory methods is usually required for gathering information related to values and freedom of choice, agency and empowerment and for assessing capabilities (Anand, Krishnakumar and Tran 2011).

Finally, the choice of the unit of analysis, even if affected by the scope of the analysis and the kind of data used, in principle should mainly refer to individuals, as the Capability Approach is an ethically or normatively individualistic approach where “individuals, and only individuals are the ultimate units of moral concern” (Robeyns 2008, p. 90).

---

6 Household surveys and aggregate indicators provide an extensive amount of information allowing the assessment of a broad spectrum of well-being domains. Nevertheless, some relevant dimensions still remain unexplored as outlined by Alkire (2007). The OPHI project on missing dimensions aims to fill this gap and identifies five dimension of poverty that should be integrated in surveys (informal employment, empowerment, physical safety, ability to go about without shame, psychological and subjective well-being).

7 This distinction between functionings measured using quantitative data, on the one hand, and capabilities measured using qualitative collected data, on the other hand, can be appropriate for clustering most empirical studies, but not every study. There are, for instance, interesting attempts to estimate capabilities using micro-data household surveys (see for instance: Burchardt and Le Grand 2002; Krishnakumar 2007) and similarly there are ad-hoc surveys conducted for measuring functionings (see: Qizilbash and Clark 2005).
Looking at the large amount of empirical evidence based on, or inspired by, the Capability Approach, it can be noted that a wide range of methodological tools and statistical techniques have been used. Roughly speaking it is possible to classify these methods into four main clusters:

i) Standard statistical methods traditionally used in the social sciences, such as regression analysis and multivariate data reduction techniques, are applied in order to select dimensions and aggregate variables, to analyse the interrelations among dimensions, to investigate the role of contextual variables or socio-demographic characteristics. Most of the empirical applications that make use of large representative household surveys adapt and combine these consolidation techniques for dealing with the methodological requirements of the Capability Approach. However, even if much progress has been made in operationalisation, some distinctive features of this approach (such as the distinction between opportunities and achievements, the freedom of choice, the agency aspects), its intrinsic complexity and the heterogeneity of conditions and situations that characterises an individual’s well-being are partially lost or difficult to capture with these techniques.

ii) Scaling techniques and aggregative strategies have been used in order to obtain a single multidimensional measure for ranking comparisons. The most famous example is the Human Development Index, calculated by the UNDP since 1990 using aggregate data at the global level, while the Alkire-Foster method represents the most recent attempt to formulate multidimensional poverty indexes calculated on micro-data related to more than a hundred developing countries. An advantage of this method is the possibility to rank and compare the units of analysis (e.g. countries or regions), to assess and monitor their performances in a relatively easy manner, to catch “the public’s eye” (Streeten 1994, p. 235) and to raise public awareness and public debate on poverty and development issues. There are, however, some serious limitations related to the choice of indicators, their comparability at a global level, the procedures used to normalisation the data and the weighting structure chosen for their aggregation. All these steps are by and large arbitrary, and each of these methodological choices can have a significant effect on the results. In addition, very little of the richness of the Capability Approach is preserved by this methodology, which is basically an attempt to go beyond uni-dimensional income-based measures and include some other dimensions of well-being at aggregate level.

iii) A range of non-standard methods of analysis, such as fuzzy methodologies (Chiappero-Martinetti 2000, 2006; Baliamoune-Lutz 2006; Berenger and Verdier-Chouchane 2007; Lelli, 2001; Roche 2008; Vero 2006), partial

---

8 Ravaillon (2010a) outlines that most of the “mashup indices” of development and poverty currently available are rarely rooted into a prevailing theory or grounded on robust methodological assumptions. For a discussion on this issue see also Ravaillon (2010b, 2011) and the contributions to the special issue of the Journal of Economic Inequalities, vol. 9, no.2, 2011.
ranking (Brandolini and D’Alessio, 2008) and supervaluationist approaches (Qizilbash 2002; Qizilbash and Clark 2005) have been adopted with the aim of preserving the richness of this approach and of handling its complexity and vagueness. These methods, while innovative and promising, are not traditionally part of the “tool box” of social scientists, and require some analytical and methodological effort. Moreover, more work needs to be done on testing and consolidating these methodologies in this field of investigation.

iv) Finally, qualitative analysis, participatory methods, focus groups and ethnographic research are now extensively used by capability scholars, particularly in fieldwork conducted in developing countries, in order to investigate what “people have reason to value”, to develop and agree on capability lists through deliberative consultations, to investigate the role of social and cultural norms in shaping preferences and choices and to evaluate how participatory methods themselves can impact on people’s capabilities. There are some undeniable merits in this kind of analysis, which seems to fit well with some distinctive principles of the Capability Approach, first and foremost that people matter and it is essential to allow them to express their opinions, values and priorities. There are equally and evidently some limits, since such methods are expensive and time-consuming, their validity and reliability is generally difficult to verify, information on the full contexts of people’s situations is not usually possible to gather in their entirety, researchers may misinterpret what people mean, and the transferability of their findings may be limited.

Overall, the growing body of empirical literature and the variety of techniques briefly outlined above should dissipate concerns that the Capability Approach cannot be operationalised. Nevertheless, more research work still needs to be done in the direction of consolidating methodological tools and experimenting with new techniques and approaches, and an interdisciplinary effort might prove helpful in this regard.

3. Quantitative and qualitative applications of the Capability Approach in education and labour market research in EU countries

In the early stages of its formulation, the Capability Approach was considered as an important theoretical framework for understanding poverty and development issues in economically developing countries. Therefore, it is not surprising that the first empirical evidence was mainly related to those countries (see: Sen 1985). It is only during the last decade that this approach has become more significant in the debate on well-being in industrialised countries, with a corresponding and growing amount of empirical evidence in different sectors of analysis.

In this section we briefly review the current state of the art of the application of the Capability Approach in economically developed countries in two interrelated and relevant fields of investigation, namely, labour markets and education, and discuss how methodological and empirical challenges have been tackled. We limit our attention to some of the most relevant or representative contributions to this literature as well as to
several European projects undertaken in recent years based on, or inspired by, the Capability Approach. The subsequent section discusses the contribution and added value of the approaches used in the WorkAble project to these subjects and to analysing in more detail the various methodological and empirical strategies used when operationalising the Capability Approach.

Concerning the first topic of investigation, i.e. labour market capability-related studies, one of the initial and finest attempts to apply the Capability Approach is the empirical analysis conducted by Schokkaert and Van Ootegem (1990) on a sample of Belgian unemployed people. In this paper, factor analysis is used to identify a list of six refined and relevant functionings (social isolation, happiness, physical functioning, micro-social contact, degree of activity and financial situation) for this specific group of people and to assess the impact of several individual and household characteristics on their living conditions. Equally innovative and pioneering is Burchardt and Le Grand’s (2002) contribution, which proposes a two-stage method for measuring employment opportunities for women: in the first stage, the potential constraints women can face in accessing paid employment are considered, while in the second stage women’s preferences in terms of labour choices are assessed in order to differentiate those who are voluntarily out of work from those who are involuntarily unemployed or inactive.

Since then, further analysis has been conducted adopting “a panoply of different research methods” (Leßmann, 2012) with the aim of investigating other relevant issues such as inclusion in, or exclusion from, the labour market (Strotmann and Volkert 2008) or the range of capabilities available over the life course (Bartelheimer, Büttner and Schmidt 2011). Any attempt to operationalise the Capability Approach for empirical purposes struggles with the difficulty of finding adequate data able to represent the richness of this framework, and particularly to capture the opportunity dimension, which is particularly relevant in this field of investigation. The importance of complementing quantitative information and providing a deeper understanding about the quality of employment has been underlined by, among others, Lugo (2007) who remarks on the need to gather data and indicators on aspects that are generally disregarded such as informal work, occupational hazard, under- and over-employment and discouraged unemployed people. The necessity to frame and extend the analysis to relevant qualitative aspects such as job satisfaction, informal employment and reproductive work from a capability perspective has also been recently pointed out by Leßmann and Bonvin (2012).

---

9 If these papers are deeply and deliberately rooted in the capability literature there are other, no less remarkable, contributions frequently mentioned which are only weakly connected to it. For instance, Defloor, Van Ootegem and Verhofstadt (2009) apply and interpret standard microeconomic methodological tools, such as the transformation curve, in terms of capabilities, while Schokkaert, Van Ootegem, Verhofstadt (2009) measure well-being in a broad sense, including aspects such as job quality and job satisfaction.

10 This proposal is part of a broader project promoted by OPHI (www.ophi.org.uk) on missing dimensions in assessing human development. They designed five short questionnaire modules to be integrated into national household surveys to obtain internationally comparable data on these dimensions, particularly in economically developing countries.
An interesting corpus of conceptual contributions and comparative analysis of labour relations and working lives in European countries and policy recommendations for social protection policies has been developed within CAPRIGHT, an interdisciplinary research project supported by the European Commission\textsuperscript{11}. The main scope of this project was to frame a set of capability-based fundamental rights and identify a corresponding set of public policies and labour relations designed to support workers (see: Bourguin and Salais 2011). Two elements of distinction characterise this project: first, the focus on opportunities, empowerment, rights and deliberative processes that are effectively available and exerted by European workers; and second, the attention paid to institutional conversion factors, industrial relations, collective responsibility and labour force management at company level.

The research experience developed within the CAPRIGHT project stimulated an interesting debate showing the potential of this framework particularly for analysing labour market policies and helping design the European social policy agenda. A couple of recently published journal special issues\textsuperscript{12} have been devoted to the discussion of issues currently of paramount relevance, such as: unemployment policies (Berthelheimer et al 2012 and Olejniczak 2012); security and employment flexibility (Lehweß-Litzmann 2012; Vero et al. 2012; and Pandolfini 2012); and collective action and collective responsibility (Bonvin 2012; Zimmerman 2011, 2012).

Equally inspiring has been the discussion stimulated by RECWOWE\textsuperscript{13}, a European research network aimed at integrating two traditionally disjointed research areas: labour markets and employment analysis on the one hand, and welfare regimes studies, on the other hand. In this case, the Capability Approach is not explicitly assumed as a theoretical framework of reference for driving the overall discussion, but some specific issues developed are directly related to it\textsuperscript{14}. A notable example is its application to analysing work-life balance across European countries and organisations and investigating whether, and to what extent, social policies enable working parents to balance professional careers and parental responsibilities and achieve a better quality of life (see: Hobson and Fahlén 2009; Hobson, Drobnic and Fagan 2011).

The second topic of research, i.e. the application of the Capability Approach in the sphere of education studies, is less consolidated compared to employment research, and still remains a field in need of further exploration. In this field of investigation, the consolidated role played by Human Capital theory largely dominates theoretical debate and empirical analysis. Nonetheless, several critiques of this theory have been advanced in recent years. First, for the narrow instrumental role that it assigns to education, disregarding other important aspects related to it. Second, because it is often based on rather strong assumptions (e.g. markets work rationally, perfectly and efficiently and the only element of distinction among people being in the different amount of human

\textsuperscript{11} “Resources, rights and capabilities: In search of social foundation for Europe” \url{http://www.capright.eu}. The main findings and policy implications are synthesised in a downloadable policy report \url{www.capright.eu/News/?contentdID=9048}.


\textsuperscript{13} “Reconciling Work and Welfare in Europe” \url{http://www.recwowe.eu}.

\textsuperscript{14} See, for instance, Goerne’s (2010) paper on the application of the Capability Approach for social policy analysis.
capital they have), although some developments do relax these assumptions. Third, because it does not seem to adequately reflect the multiplicity of personal and contextual factors that can generate different sets of individuals’ opportunities or affect their educational choices.

It has been noted by many capabilities scholars that the framework formulated by Sen and Nussbaum can provide a wider perspective able to acknowledge not only the instrumental value of education in promoting productivity, economic growth and personal income and wealth, but also the direct relevance that education can play in increasing individual well-being and promoting social development (Sen 1999; Nussbaum 2006; Robeyns 2006; Unterhalter 2009; Chiappero-Martinetti and Sabadash 2012; among others).

If all these authors argue for a more comprehensive understanding of education, some of them move a step further, suggesting how this approach can be operationalised and provide empirical evidence of its value and relevance in modern societies. Walker (2008), for instance, analyses the role of higher education and lifelong learning in relation to capability-related aspects such as agency, public values and global citizenship. By means of an empirical qualitative study conducted on lecturers and students she also investigates the capability formation and the role of institutional conditions in the research/teaching nexus.

Another empirical study on how universities can enhance students’ capabilities has been conducted by Boni et al (2010). They elaborate a list of what they define as “cosmopolitan capabilities”, which include critical thinking, empathy, participation, intercultural respect, reflexiveness and curiosity, and interview a group of students in order to investigate the role of universities as a driving force for creating a cosmopolitan citizenship. Young (2009a, 2009b) examines standard qualitative and quantitative income-based approaches for evaluating learning outcomes. In particular, she critically compares and discusses the relevance-based and performance-based methods and suggests combining them in order to integrate the local perspective into an evaluative framework sufficiently flexible to be adapted to different cultures and contexts.

Chiappero-Martinetti and Sabadash (2012) propose complementing the Capability Approach with some methodological and conceptual aspects developed in Human Capital Theory in order to measure the threefold role of education – namely, education as a means for other purposes, including: as an investment for the labour market; as an end in itself; and as a crucial factor in the conversion process of means into well-being. Making use of the British Cohort Study (BCS70) they map the variables that can be considered as good proxies for measuring both market and non-market benefits of education. The same dataset is also used by Burchardt (2009) for examining agency

---

15 On higher education and the Capability Approach, see also the volume edited by Walker and Boni (2012).

16 BCS70 is a longitudinal secondary dataset which provides detailed information on the educational and professional choices of a sample of individuals regularly tracked and interviewed since their birth in 1970.
goals, education and work aspirations of British youth and operationalising the dynamic and broad concept of “capability as autonomy”\textsuperscript{17}.

Finally, a thematic issue on education, in relation to human development and capabilities, has been published in the Journal of Human Development and Capabilities (2012). The collection of papers offers an important theoretical, empirical and methodological contribution to the current scientific debate, showing the potential of the human development and human capabilities framework for education inquiry and education policies (see Walker 2012, for an overview of its contents).

4. Examples of the application of the Capability Approach from WorkAble

In an EU context of high rates of early school leavers and young people who have not completed their upper secondary school education, as well as the recent transition from industrial to more knowledge-based societies, the “WorkAble: Making Capabilities Work” project aimed to: “provide knowledge on how to enable young people to act as capable citizens in the labour markets of European knowledge societies. It assesses the political and institutional strategies aiming to cope with the high rates of youth unemployment, early school leaving and dropouts from upper secondary education” (http://www.workable-eu.org/about-workable/objectives). WorkAble used a comparative perspective to analyse employment and educational policies at the local, regional, national and European level. WorkAble had six work packages, although this section focuses upon the three where primary and secondary qualitative and quantitative data collection and analysis was undertaken, specifically:

- identifying the educational, vocational and policy landscapes in Europe;
- studying educational programmes from a micro perspective;
- understanding their effects on the transitional trajectories, from education to work, of young people.

This section outlines the questions asked, the methods used and reflections on the lessons learned when operationalising the Capability Approach in WorkAble.

4.1 Identifying the educational, vocational and policy landscapes in Europe: the importance of contextual research and the Capability Approach

Contextual information was collected as part of WorkAble in order to situate and shape the primary and secondary data collection and analysis undertaken in the rest of the research. The Capability Approach recognises that individuals are affected by the

\textsuperscript{17} A Marie Curie International Training Network project is consolidating research on education and welfare and investigating young people’s opportunities in three central interrelated dimensions of welfare (i.e. work, autonomy and participation) using the theoretical framework of the Capability Approach. The innovative research lines undertaken by the young doctoral students involved in this project should advance the knowledge and empirical evidence on this specific topic and enhance the frontier of the operationalisation of this approach (see: www.eduwel-eu.org).
institutions that surround them (Bonvin and Orton 2009) and in order to understand an individual’s capabilities set you need to examine the goods and services they may have access to and the social environments in which they are embedded, as these can hamper efforts to convert resources into capabilities (Bonvin and Moachon 2008). Contextual information also highlights the informational basis of educational and vocational policy making by identifying what the information judgements are based upon, i.e. what is considered as a legitimate transition (from education to work), and what behaviours and responsibilities are expected of young people (Sen, 1990; Bonvin 2012). A purely informational basis of judgement is not sufficient in that it “implies a selection of specific factual data or information which is then considered as the adequate yardstick for public evaluation and action. This data selection coincides with the exclusion, explicit or not, of other information seen as irrelevant” (Bonvin and Farvaque 2006: 122).

The purpose of collecting contextual information in WorkAble was for the national research teams to describe and provide a critical analysis of the educational regimes in the countries investigated, and analyse the standard paths of education and transition to employment and the labour market. The aim was not only to describe the educational and training systems, but also to see how they were situated in the “education-employment-community/social integration” nexus. As such the ways in which these educational regimes integrate labour market requirements were also explored for example. In addition, those young people who typically fail in the standard routes of education and transition to employment, and the reasons for this were explored. The strategies and methods employed by the various educational regimes to cope with these groups of young people were explored. In analysing the provisions for early school leavers and young people facing problems entering the labour market, knowledge was added to the discussion about educational regimes.

Four dimensions were emphasised: (i) the objectives that policymakers sought to achieve; (ii) the configurations of actors involved and the distribution of roles and responsibilities between them; (iii) the ways in which training and the transition to employment were organised; iv) the provisions (programmes, measures, support) available for those young people who have problems in following the standard routes of education and transition to employment/the labour market. In order to address these questions centred on four key themes identification of: the relevant educational regimes; the relevant actors and governance modes; the main strategies to support people who fail in the standard routes of education and transition to employment; the extent to which the national debates refer to the European level debate. Two key methods were employed: (i) documentary analysis regarding legislative and administrative provisions at national, regional and local level, collective labour agreement and other official documents; and (ii) interviews with key stakeholders in the educational system such as government policymakers. Other methods were also adopted to add further depth including statistical overviews on education and unemployment and small case studies of the issues raised.

4.2 Studying educational programmes in a micro perspective: qualitative case studies of innovative programmes supporting young people in their school-to-work transitions
The aim of the WorkAble qualitative case studies was to enhance understandings of successful ways in which to support young people (who encounter difficulties, or who fail, in the ‘standard’ routes of education and transition towards employment - identified through the contextual research) by empowering their capabilities for voice\textsuperscript{18}, work and education. In order to do this, case studies were conducted on new and/or innovative programmes that support (disadvantaged) young people in their transitions between education, training and work, and were provided by organisations across the public, private and third sectors. The transitions of young people who are at a disadvantage in the labour market, and who are not involved in any specific kind of programme, were also considered. The groups of young people of concern in the case studies were: early school leavers (France; Switzerland; Italy); unemployed young people (Denmark; UK); those lacking skills and qualifications (Austria; Germany; Poland); and higher education graduates experiencing difficulties finding the work they wanted (Sweden). The case studies were analysed by applying the Capability Approach, in particular focusing upon the young people's capability for voice, work and education. Details of the operationalisation of the Capability Approach in the qualitative case studies can be found in Hollywood et al (2012).

A common survey framework was developed for use in all the qualitative case studies. The questions centred on the ways in which three capabilities in particular developed: voice, work and education. Rather than using a predefined list of capabilities (Nussbaum, 2000, 2003) the approach focused on capabilities specific to the contexts of the wider aims of the WorkAble thus acknowledging that the Capability Approach is used for different goals (Robeyns 2005a, 2006; Alkire 2007). Four factors were identified as core to the development of these capabilities:

1. **Resources**: what resources are available for the initiatives in order to help develop the capabilities of young people and what resources do the beneficiaries bring with them to the programmes. It was acknowledged that individuals could achieve different functionings, as they have different conceptions of what they have reason to value (Robeyns 2005b).

2. **Empowerment**: are beneficiaries empowered to have autonomy, freedom and a voice in the delivery and implementation of the initiatives (Sen 1985, 1998) or do they have to comply with organisational expectations (Bonvin and Moachon 2008).

3. **Individual conversion factors**: whether individuals have the necessary conversion factors in terms of individual characteristics (e.g. gender, education, social status) to transform resources into capabilities (Robeyns 2005b; Bonvin and Moachon 2008).

4. **External conversion factors**: the role of external social and structural factors (e.g. labour market conditions, workfare policies, social stratification) in the

\textsuperscript{18} Voice has been defined as “the extent to which people are allowed to express their wishes, expectations and concerns in collective decision-making processes and make them count” (Bonvin 2012: 15).
conversion of resources into capabilities/functionings (Robeyns 2005b; Bonvin and Orton 2009).

In order to answer these questions the focus was on individual accounts and these were used to examine the development of capabilities at: the micro level (the subjective, professional and interactive level); the meso level (the interactive, institutional and conceptual level); and the macro level (the political and societal level).

Research interviews (group and individual) with young people and other stakeholders in the case studies (e.g. managers, staff) were the most commonly used method. The rationale was to gauge a wide variety of individual insights and perceptions, and gain understandings of complex relationships. In addition to the interview approach some cases also used documentary analysis to help in case selection, to provide context and for triangulation. Participant observation was also used in one case study. In terms of data analysis, a thematic content/coding analysis of the data was most commonly used although the approach taken to this varied. Although some followed Grounded Theory guidelines (see for example: Strauss and Corbin 1998) the Capability Approach acted as a framework for analysis with each case drawing on the common questions and focusing on the capabilities for voice, education and work. Table 1 summarises the methods used in the qualitative element of WorkAble.
<table>
<thead>
<tr>
<th>Method</th>
<th>Rationale</th>
<th>Case study example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviews with programme beneficiaries /young people</td>
<td>Insight into young people’s individual experiences of their transitions and/or the programmes they are enrolled in. The development of the capabilities for voice, work and education were focused upon by some.</td>
<td>In the German case study problem centred interviews were conducted with young people. The aim was to examine how do young people experience, interpret and value aspects of the school-to-work transition and the programme they were involved with.</td>
</tr>
<tr>
<td>Interviews with programme deliverers</td>
<td>Insight into the programmes in terms of organisational processes, every day practices and profiles, and how these affect the young people's transitions. This method also captured individual experiences.</td>
<td>In the UK case study interviews were conducted with service managers and project workers in order to get their insights into the programme delivery. In the Austrian case study the explorative and expert interviews with managers, trainers and social pedagogues gave an insight into the logic, philosophy and ways in which the programme managed the beneficiaries’ transition into employment.</td>
</tr>
<tr>
<td>Interviews with policy makers</td>
<td>To understand institutional processes, frameworks and policy involvement, and the impact of public action on the development of capabilities.</td>
<td>The French case study included semi-structured interviews with the regional public authorities and in the Italian case study with policy makers from the regional council. The case study interviewed representatives from the head offices of the programmes (i.e. those responsible for the programme direction).</td>
</tr>
<tr>
<td>Interviews with employers, union representatives and employment office</td>
<td>To provide a labour market perspective.</td>
<td>The use of this method was specific to the Swedish case study which focused on higher education graduates experiencing difficulties in finding a desired job.</td>
</tr>
<tr>
<td>Interviews with employees at the university</td>
<td>To understand how students voice their opinion and make it count within the public policy process; and how policy documents, texts and accounts are used in practice.</td>
<td>The use of this method was specific to the Swedish case study.</td>
</tr>
<tr>
<td>Group interviews with beneficiaries</td>
<td>Overview; evidence on how the youngsters interact; preparation for the face-to-face interviews; and understanding the programmes’ effects on capability development.</td>
<td>The French case used both small group interviews of 3-5 pupils and larger class groups (greater than 10 pupils). The interview guide focused on capability for voice, education and employment.</td>
</tr>
<tr>
<td>Group interviews/focus groups with policy makers and project workers</td>
<td>Understand the level of the organisational processes and interactions.</td>
<td>The Italian case study conducted focus groups with policy makers from the regional council, and project leaders/social workers from the programme organisation. In conjunction with the other methods, they facilitated the investigation of conversion factors and the implementation process. For the Danish case study, group discussions arose spontaneously when interviewing teachers.</td>
</tr>
<tr>
<td>Participant observation</td>
<td>Understand the level of the organisational processes and interactions.</td>
<td>The Italian case study conducted participant observation of various phases of the programme. The Polish case study was unable to use of participant observation due access and resource constraints.</td>
</tr>
<tr>
<td>Documentary analysis</td>
<td>Contextual information. For some, documentary analysis aided case selection and was used for the purposes of triangulation.</td>
<td>The Swiss case study used documentary analysis to understand the political and economic context of the programme and to identify the main stakeholders in the programme.</td>
</tr>
<tr>
<td>Statistical data analysis</td>
<td>Case selection and triangulation.</td>
<td>The Polish case study used this method for the selection of a relevant educational initiative to study. It also helped plan the rest of the research as well as supplementing and controlling information from the interviews and the interpretation of results.</td>
</tr>
</tbody>
</table>
4.3 Understanding the effects on transitional trajectories of young people: quantitative analysis of young people’s transitions from education to work

Using the European Union Statistics on Income and Living Conditions (EU-SILC) longitudinal data as well as more in-depth analyses of specific countries and comparative analyses of pairs of countries, the quantitative element of WorkAble sought to identify and understand transitions from the educational system to the labour market among young Europeans and whether educational strategies contribute to extending their capabilities for work and social participation. The quantitative element in particular analysed: the degree to which comparable educational attainments among young people led to different labour-market opportunities depending on the configuration of labour market and educational regimes; as well as the relationship between education, transitional trajectories and individual well-being and social exclusion and how this relationship varied between different EU member states.

EU-SILC data were used by the teams to make comparisons between countries, although in addition some studies focused on national data sources from a small sample of countries19. EU-SILC comprises of cross-sectional and longitudinal multidimensional microdata on income, poverty, social exclusion and living conditions. It is based on a common framework rather than a common survey. Variables are collected at the individual and the household levels (Eurostat 2010, 2011a). The minimum sample size surveyed every year for the cross sectional data is approximately 130,000 households and 270,000 persons aged over 16. For the longitudinal data approximately 100,000 households and 200,000 persons aged over 16 participate (Eurostat 2011b). It must be acknowledged that EU-SILC does have certain limitations e.g. varying approaches to data collection in different countries (Lohmann 2011). However for the purposes of WorkAble the fact that EU-SILC is made up of representative samples of the total population in each country made it possible to compare the situation of young people with other age groups, which is essential in order to understand what characteristics in each country are specific for young people and what are more general country, or regime, characteristics. EU-SILC data have been previously used in research adopting a capabilities perspective. For example, Vero et al (2012) examine European employment security indicators derived from EU-SILC data and Lehweß-Litzmann (2012) analyses the coincidence of employment flexibility and poverty using EU-SILC micro data.

A range of analytical methods was used such as: descriptive analysis; parametric statistics; OLS and logistic regression; cluster analysis; multivariate analysis. This is summarised in Table 2, along with the main conclusions drawn.

---

19 Some of the analysis made use of datasets other than EU-SILC data to make more in-depth studies of specific countries. The British Household Panel Survey was used to explore the effects of scarring on transitions of young people in the UK and the Northern Swedish Cohort study to examine the long term mental health effects of two different forms of unemployment experiences in Sweden.
Table 2: Summary of the Questions Asked and Methods Used in the Quantitative Element of WorkAble

<table>
<thead>
<tr>
<th>E.g.</th>
<th>Theme and main findings</th>
<th>Data set</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Theme: Labour-market trajectories of young Europeans and educational and occupational intergenerational social mobility in 26 European countries. Main findings: In the great majority of European countries, education systems and labour markets: higher educational levels lead to better jobs and better life chances; but the number of good and top jobs in a given labour market system is always limited, regardless of the educational level of its workforce, so the rewards from higher education vary.</td>
<td>EU-SILC and matrices of the transitions between the three major labour market statuses (employment, unemployment and inactivity) were used following the OECD’s Employment Outlook series.</td>
<td>Descriptive analysis of labour market trajectories based on transition matrices. Logistic regression to explore the relationship between the selected socio-economic variables and transitions between non-employment (including both unemployment and inactivity) and employment. The reference country is the United Kingdom, the reference education level is first stage of tertiary education, the reference marital status is divorced, the reference health status is very bad and the reference gender is female.</td>
</tr>
<tr>
<td>B</td>
<td>Theme: Effects of scarring on transitions of young people in the UK. Main findings: The results indicate that periods of unemployment while young lead to scarring in terms of pay and unemployment, but not significantly for well-being (measured by life satisfaction), with some other factors being important in different periods for the cohort. Second, the importance of people losing confidence appears to be important in all cases and indicates that such psychological factors need to be considered more carefully as they affect the capabilities of young people in the labour market.</td>
<td>British Household Panel Survey waves H, which is mainly 1998, and R, which is mainly 2008. The cohort of those aged 18-24 in 1998 are followed for a decade, hence by 2008 they are 28-34 years old. Sample size varies by model, up to 565 participants.</td>
<td>Pay: an Ordinary Least Squares regression model was used to fit the natural log of the last month’s current pay. Further variables were included in the analysis in order to determine the scarring effects unemployment 5 and 10 years previously. Unemployment: As the dependent variable was binary (employed or unemployed) a binary logistic regression was used to obtain the probability of being unemployed in the respective year. Satisfaction with life: A binary logistic regression model was used to model satisfied with life versus not particularly satisfied. In this model, further financial related variables were included.</td>
</tr>
<tr>
<td>C</td>
<td>Theme: Labour market trajectories and young Europeans’ capabilities to avoid poverty, social exclusion and dependency in 23 European countries. Main findings: Young people are variously exposed to different types of labour market trajectories but this does not explain many of the differences in poverty, deprivation and independent living between EU countries. It is identified that Nordic countries have a system where young people have the capability to set up an independent household at an early age. It makes them relatively poor financially, but not particularly deprived; and it could be that they believe that such poverty is a price worth paying for being capable of living a life they have reason to value.</td>
<td>EU-SILC from 2007- 2008. The sample was restricted to those aged 16-65, focusing on the age span 16-25 (sample size of 26,755). A 3-year panel was selected: those who participated from 2006-2008 and those who participated from 2005-2007.</td>
<td>Cluster analysis was used to derive labour market trajectories from monthly information about “main activities”, that is, cluster analysis was used to extract the main independent variables. The substantial analysis was carried out with a mixed model regression.</td>
</tr>
</tbody>
</table>
| Theme: The long-term mental health effects of two different forms of unemployment experiences in Sweden.  
Main findings: There are strong negative effects of open unemployment on mental health in the short-term, with severe scarring effects at age 21; but participation in youth programmes seems not to cause the same negative short- and long-term mental health scarring as open unemployment when young. | The cohort includes all pupils who at age 16 in 1981 attended, or should have attended, the last year of compulsory school in a medium-sized industrial town in northern Sweden (sample size of 1,083). The participants were revisited at ages 18, 21, 30 and 42. Register data was also used from the Longitudinal Integration Database for Sick Leave and Labour Market Studies. | Pearson correlations for original descriptions of the relationship between the two exposure variables and mental health at ages 16, 18, 21, 30 and 42. Also in order to investigate the questions posed, data were used longitudinally as repeated measures using a repeated-measures linear mixed-models approach with random intercepts. |
| Theme: A longitudinal study of parental social class, education and the non-market capabilities of subjective health, voice and agency. Main findings: First, class background matters for the non-market capabilities of agency and voice, but not for subjective health. Second, education, primarily university level, matters for the non-market capabilities of voice, agency and health. Third, social class of origin is strongly related to educational attainment. Finally, education matters more for youths with a blue-collar background and less for those with a higher white-collar background for all three non-market capabilities studied. | The Swedish Survey of Living Conditions, an annual individual level survey of living conditions that is based on in-person interviews with a random sample of the population aged 16-74. A partial panel approach was used from 1979 and all respondents who were still teenagers and participating in one of the surveys 1988-1995 and re-interviewed eight years later (1996-2003) were selected (sample size 1,058). | Multivariate analyses using standard techniques. The voice variable is treated as a continuous variable and OLS-regressions are utilised. The regression coefficients represent the estimated difference on the voice scale between the study category and a reference category, all other control variables in the model being equal. For the agency and subjective health variables binary logistic regressions are applied. A step-by-step analytical strategy was employed with the aim of adding the independent variables to four regression models. In addition, the paper offers three further models where the full regression model is run separately for three categories of parental class (blue collar workers, higher white collar workers and others). |
| Theme: A comparison of the labour market outcomes of Early School Leavers in France, Italy, Poland and Sweden using a capability-based approach. Main findings: The jobs available to early school leavers are, for the most part, temporary or compulsorily part-time and they indicate that they lack the capability to enjoy work that they have reason to value. Second, the findings demonstrate the limitations of the category of people aged 18-24 when analysing school-to-work transitions. | EU-SILC from 2007, not distinguishing between lower and upper secondary school. | For the analysis of the labour market outcomes for early school leavers the authors harmonised EU-SILC data. To provide figures that matched with the accounts categories and frames defined at the European level, they elaborated national sources either prior to or during the questionnaire design or later in statistical processing procedures. |
| Theme: Empirical evidence from 21 European countries as to whether active labour spending would enhance the capability for work of entrants. Main findings: On average, active labour market policies have little, if any, effect on the capability for work. | EU-SILC data from 2007. The sample was restricted to those aged 16-30 and who left the educational system prior to 2005-2006. A three-year panel was used in order to have a sufficient sample: those who participated 2006-2008 and those who participated 2005-2007. The total sample size of young people was 20,909. | The analysis starts from the hypothesis that people are nested within countries: it provides fixed effects, assumed to be homogeneous across countries, and random effects which capture differences between countries. Seven multilevel logit models reveal the relationship between labour market trajectories and the conversion factors that may influence these variables. Individual conversion factors are sex, level of education, residential autonomy and parental situation (when applicable). Social conversion factors include Active Labour Market Policy (ALMP) expenditures, youth unemployment rate and early school leaver rate. |
4.4 Reflections on Measuring Capabilities in Qualitative and Quantitative Research: Lessons Learned from WorkAble

This section summarises the reflection of the different WorkAble teams on operationalising the Capability Approach.

4.4.a Reflections from the Qualitative Research

The research teams highlighted some methodological issues that need to be considered when undertaking qualitative research, especially with hard to reach and vulnerable groups. While research ethics demand that careful consideration be given to working with such groups, in addition official approval may be needed to undertake research in some (national) contexts, and the possible delays that this may cause need to be factored into the research timetable. Gatekeepers are often crucial in enabling research teams to get access to vulnerable groups. However, they can place conditions on the research team (e.g. when participants can be interviewed, whether audio recordings can be taken etc.) that may have a great effect on access to participants and the ability to accurately record their accounts. The use of gatekeepers can also affect the relationship between the researcher and the participants (see for example Sixsmith et al 2003 and Emmel et al 2007 for further discussions on using gatekeepers to access hard to reach groups). Some teams noted that the young people they engaged with viewed them as part of the ‘establishment’ and therefore it was not always easy to develop trust with them. The importance of research participants being able to relate to the researcher should not be underestimated (Finch 1993; Oakley 1990; Sixsmith et al 2003). While these are arguably more general issues, they are important when operationalising the Capability Approach with such vulnerable groups.

The capability for voice was especially relevant when considering engagement with the young people in qualitative research. For many of the young people they were not used to having voice so it was important for the researchers to develop trust with them. Equally the young people sometimes found it difficult to answer questions about what they would want to ‘change’ or ‘develop’ in their lives or where to make contributions because this is something they had never considered before as they had never been asked what they would like to do. Voice and choice may not have a role if the institutional focus is on the functioning for work. Due to the constraints in the labour market young people may value any job rather than having no job at all (Taylor 2005; Schmelze 2011), and they may have low aspirations (Morris et al 1999; Kintrea at al 2011; Schoon and Parsons 2002; Spielhofer et al 2011). The issue of adaptive preferences is relevant here as people’s choices may be ‘deformed’ by a range of factors (Nussbaum 2000, p. 114) with Bonvin and Farvaque (2005) arguing that institutions that do not promote the development of the capability for voice produce adaptive preferences. In addition research needs to ask whether the initiatives really encourage young people to
choose a life they have reason to value, or whether they encourage young people to choose a life as defined as valuable by social/organisational norms.

Qualitative research methods themselves can hamper the development of young people’s voice. Young people may find it hard to answer open questions; in group interviews the group dynamics may make it difficult for some participants to voice their opinions if others are more vocal; those with literacy needs may find it hard to answer questionnaires on their own; and low self-confidence, concentration problems etc. may hamper young people’s ability to engage in the research process. But while young people’s unwillingness or difficulty to answer questions should be addressed through developing trust with them and using a range of innovative research techniques to enable them to have voice, it should also be considered that this lack of engagement itself can be a sign of young people voicing their freedom not to engage in the research process.

It is difficult to draw conclusions as to whether the qualitative case studies revealed essential features of the Capability Approach. The case studies have highlighted and examined the contexts in which a young person’s capabilities might be formed. However, as discussed in section 2 it is acknowledged both in the literature concerning both the qualitative and quantitative operationalisation of the Capability Approach that, while it is possible to observe outcomes (functionings), observing an individual’s freedoms (capabilities) is much harder (Miquel and Lopez 2011). One of the case study teams reflected of the capabilities for voice, education and work that the capability for voice was often the most evident and easier to find indicators for. A possible way to address this in future applications of the Capability Approach would to disaggregate each of the capabilities into a series of indicators before undertaking the research rather than trying to identify them afterwards.

4.4. b Reflections from the Quantitative Research

The Capability Approach invites researchers to conceptualise and examine the school-to-work in transition in a different way that goes beyond focusing on a quantifiable measure like the employment rate at a given date. Measuring capabilities in quantitative research can be difficult. In the quantitative element of WorkAble, following the Capability Approach, the teams examined what young people wanted to do and emphasised the abilities of young people to do what they wanted. There was a focused search on variables linked to the Capability Approach. The lack of ‘capability variables’ in existing datasets such as EU-SILC and national

20 See Hazel (1995), Punch (2002) and Barker and Weller (2003) who outline examples such as using vignettes and photographs to encourage discussion, and ‘secret boxes’ where participants can anonymously write down aspects of their experiences that they would not feel comfortable discussing directly with the researcher etc. when researching the experiences of children and young people.
surveys was emphasised, with teams better able to measure achieved outcomes rather than freedoms and capabilities. As outlined in section 2, capabilities cannot be observed in relation to outcomes that individuals have reason to value, only in relation to factual outcomes. In order to address this some partners did use proxies for capabilities, such as variables regarding a person’s financial situation as a surrogate for their financial capability – defined as being able manage finances day to day, plan ahead, select financial products, seeks financial advice, and the motivation to efficiently manage finances and effect change (McQuaid and Egdell 2010) (see example B in Table 2). Others used data on labour market trajectories as an indicator of capabilities (see example C in Table 2); or the capability to appeal against a decision made by the authorities as an indicator of the capability of agency (see example E in Table 2). There are also other limitations of using EU-SILC when undertaking research from a Capability Approach. The sample size may be too small to make generalised statements about early school leavers for example. One WorkAble team outlined the lack of information on work and labour market outcomes and that EU-SILC sees employment as the ideal functioning, without taking account of its quality or the person’s specific circumstances. Despite these limitations longitudinal data such as EU-SILC do enable researchers to tackle the functioning aspect of the capability for work in a dynamic way that goes beyond simply looking at the employment rate. Overall, however, given the basic restrictions described above, the Capability Approach adds some normative value (highlighting freedom to choose) but remains focused more on functionings in its quantitative empirical applications.

Therefore in order to conduct more effective research in future more measures of capabilities need to be collected. This could encompass direct questions on what people have reason to value in terms of their current outcomes. For example using a scale measure to ascertain how much an individual values their current job. The employment quality issue would also need to be taken into account when studying the school-to-work transition. These perspectives could be achieved by developing new large scale, and preferably longitudinal, surveys specifically to measure capabilities. Otherwise capability questions could be added to existing surveys. Ideally an individual’s preferences before they achieved a certain outcome need to be identified (but even if this were possible there would need to be imposed strong assumptions about stability of preferences as what people have reason to value may change over time). Further information is also needed relating to the context of people’s lives in order to understand what they have reason to value. Future research from a Capability Approach could also use both longitudinal and linked data in order to tackle both aspects of freedom, i.e. opportunity and freedom.

5. Conclusions

Extensive and increasingly frequent empirical applications of the Capability Approach in a broad range of fields of investigation show that researchers can meet many of the challenges posed by this approach by adopting various empirical
strategies and technical solutions. In this chapter we have provided an overview of some of the more significant contributions in research literature and recent related empirical studies on capabilities, labour markets and education in Europe, paying special attention to recent European projects inspired by or based on the Capability Approach including the WorkAble project. The intrinsic complexity and multi-layered structure of this approach seems to be particularly suitable for conceptualising and contextualising the education-employment-community integration nexus. The quantitative and qualitative analyses presented here set out some of the major issues concerning the empirical application of the Capabilities Approach and put forward some interesting perspectives and examples for those who wish to make use of the Capability Approach for future investigation in this field.
References


Chapter Chiappero, Egdell, Hollywood, McQuaid for Workable Textbook, del. 6.7 – version 23/07/2012


Chapter Chiappero, Egdell, Hollywood, McQuaid for Workable Textbook, del. 6.7 – version 23/07/2012


